



ENSR International

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December 23, 2005

Mr. Jim Tischler  
North Coast Water Board  
5550 Skylane Boulevard, Suite A  
Santa Rosa, California 95403

**RE: Quarterly Groundwater Monitoring and  
Ozone Remediation System Status Report, Fourth Quarter 2005  
Former Unocal Station No. 2672**  
1075 Santa Rosa Avenue, Santa Rosa, California  
ENSR Project No. 06940-268-100

Dear Mr. Tischler:

ENSR Corporation (ENSR) has been authorized by Union Oil Company of California (Unocal) to prepare this report summarizing quarterly groundwater monitoring and ozone remediation system status at the above referenced site located at 1075 Santa Rosa Avenue, Santa Rosa, California (**Figure 1**). This report presents the results of quarterly groundwater monitoring and ozone remediation system status through the fourth quarter 2005. The work was performed in accordance with the field methods and procedures included in **Attachment A**. The locations of former and current site features are illustrated on **Figure 2**.

#### **Groundwater Level Measurements**

Depth to groundwater measurements were recorded in monitoring wells MW-1 through MW-11, MW-12A, MW-12B, MW-13A, MW-13B, MW-14A, MW-14B, and MW-15 on October 27, 2005 (**Table 1**). Separate phase hydrocarbons (SPH) have historically been detected in monitoring well MW-4 since 1993. SPH has varied in thickness from a sheen to 0.76 feet. SPH was not detected in well MW-4 during the fourth quarter monitoring event. Monitoring wells MW-1 through MW-11 and MW-15 are screened from approximately 5-10 feet to approximately 20-34 feet below ground surface (bgs) and monitor the shallow groundwater zone. Monitoring wells MW-12A, MW-13A, and MW-14A are screened from 50 to 55 feet bgs and monitor the intermediate zone. Monitoring wells MW-12B, MW-13B, and MW-14B are screened from 80 to 85 feet bgs and monitor the deep zone. Groundwater measurements collected were used to construct three groundwater elevation contour maps for the site. The shallow, intermediate, and deep zone groundwater elevation contours are illustrated on **Figures 3 through 5**, respectively.

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On October 27, 2005, the groundwater flow direction in the shallow zone was toward the west with a hydraulic gradient of 0.01 feet per foot (ft/ft) (**Figure 3**). The groundwater flow direction in the intermediate zone was toward the southwest with a hydraulic gradient of approximately 0.002 ft/ft (**Figure 4**). The groundwater flow direction for the deep zone was toward the northeast with a hydraulic gradient of approximately 0.001 ft/ft (**Figure 5**). The groundwater elevations decreased in all wells except in MW-13B when compared to the third quarter 2005 monitoring results. The decreases varied from 0.89 feet in MW-8 to 2.31 feet in MW-6. Copies of the groundwater sampling data sheets are included in **Attachment B** and a summary of groundwater elevations measured to date is presented in **Table 1**.

### **Groundwater Sampling and Analytical Results**

Groundwater samples were collected on October 27, 2005, from wells MW-1 through MW-11, MW-12A, MW-12B, MW-13A, MW-13B, MW-14A, MW-14B, and MW-15. The groundwater samples were submitted under chain-of-custody protocols to California Laboratory Services (CLS) in Rancho Cordova, California (a state-certified laboratory) for analysis of total petroleum hydrocarbons as gasoline (TPHg) using Environmental Protection Agency (EPA) Method 8015 Modified. Analyses were also performed for benzene, toluene, ethylbenzene and total xylenes (BTEX), fuel oxygenate compounds methyl tertiary butyl ether (MTBE), tertiary-amyl methyl ether (TAME), tertiary butyl alcohol (TBA), di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), and 1,2-dichloroethane (1,2-DCA) using EPA Method 8260B.

Cumulative groundwater sampling analytical results are summarized in **Tables 1** through **4**. Concentrations of TPHg, benzene, and MTBE in groundwater sampled on October 27, 2005 are presented in **Figure 6**. Iso-concentration maps for TPHg, benzene, and MTBE in the shallow water bearing zone are presented as **Figures 7, 8, and 9**, respectively. Laboratory analytical results with chain-of-custody documentation are included in **Attachment C**.

Samples were collected for monitored natural attenuation (MNA) parameters using the low flow sampling protocol (EPA /540/S-95/54) at MW-4, MW-5, MW-8, and MW-11 on November 29, 2005. Samples were sent to Microseeps, Inc. in Pittsburgh, Pennsylvania, a laboratory specializing in analysis of MNA parameters. Samples will be analyzed for ferrous iron, nitrate, sulfate, sulfides, and total inorganic carbon. The results will be reported in the next quarterly groundwater monitoring report. The MNA parameter results will be used in the upcoming remedial alternative evaluation process.

In the fourth quarter 2005 monitoring event, benzene was detected in six wells, ranging from 230 micrograms per liter ( $\mu\text{g}/\text{L}$ ) in well MW-7, to 38,000  $\mu\text{g}/\text{L}$  in well MW-4. Benzene was detected in five wells, ranging from 7.3  $\mu\text{g}/\text{L}$  in well MW-3 to 9,600  $\mu\text{g}/\text{L}$  in well MW-4.



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Benzene was not detected in wells MW-5 through MW-7 during the fourth quarter 2005 monitoring event. MTBE was detected in six wells, ranging from 0.64 µg/L in well MW-5 to 350 µg/L in well MW-2. Petroleum hydrocarbon constituents above the laboratory reporting limits were not detected in ten wells (MW-6, MW-9, MW-10, MW-11, MW-12A, MW-12B, MW-13A, MW-13B, MW-14B, and MW-15) during the fourth quarter 2005.

#### **Ozone Microsparqe (C-Sparge™) Remediation System Description**

An ozone remediation system on site treats saturated soil and groundwater via a C-Sparge™ system. The C-Sparge™ system includes an ozone generator, an air compressor, and a Rainbird™ timer controller. The C-Sparge™ system uses ozone micro-sparging which is a process whereby ozone is entrained in air and introduced into the saturated zone. The ozone is injected at low flow rates of two to six cubic feet per minute through specially designed Spargepoints® to create "micro-bubbles." The oxygen released encourages in-situ biodegradation of petroleum hydrocarbons.

The system injects ozone with air in cycles using ten Spargepoints® (SP-1 through SP-10) to saturated soil and groundwater. SP-1 through SP-5 were installed in September 2003 to a depth of 18 feet bgs. SP-6 through SP-10 were installed in September 2003 to a depth of 20 feet bgs. Spargepoints® introduce ozone using a 2-foot long, 2-inch diameter micro-diffuser into the areas of highest dissolved petroleum hydrocarbon concentrations at the site. Each Spargepoint® is connected to the C-Sparge™ master unit through a length of dedicated high density polyethylene (HDPE) tubing installed below ground.

HDPE tubing was installed in a 2-inch diameter schedule-40 poly-vinyl-chloride (PVC) pipe conduit from SP-1 and SP-3 to the first junction box (J1). From there the tubing (in a 6-inch diameter schedule-40 PVC pipe conduit) was conveyed to the second junction box (J2). HDPE tubing in 2-inch diameter schedule-40 PVC pipe conduit connects SP-4, SP-5 and SP-6 to J2. Tubing from SP-1 through SP-6 runs through J2 to the remediation compound in a 6-inch diameter schedule-40 PVC pipe conduit. Tubing from SP-7 through SP-10 runs through junction box three (J3) in a 2-inch diameter schedule-40 PVC pipe conduit. From J3, the tubing runs to the remediation compound in a 6-inch diameter schedule-40 PVC pipe conduit. The two 6-inch diameter schedule-40 PVC pipe conduits containing tubing from SP-1 through SP-10 terminate in a 3-foot diameter well box termed junction box four (J4) within the remediation compound.



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### **Ozone Microsparge (C-Sparge™) System Operation and Status**

The Rainbird™ timer settings were adjusted on September 28, 2005, to increase the removal of petroleum hydrocarbon contaminants in saturated soil and groundwater by cycling through each Spargepoint® six times per day, for 20 minutes per point, per cycle. A 40-minute rest time between each cycle is now programmed to allow the ozone generator and compressor to cool down.

The ozone concentration supplied to the Spargepoints® was measured in the remediation compound using a Dräger tube [Part number CH 21001, 20-300 parts per million by volume (ppmv) range]. A Key Instruments™ air flow meter was used to measure the flow rate. Based on a 2.5 standard cubic feet per minute flow rate and 90 ppmv concentration of ozone, the ozone generator capacity was estimated as 0.03 pounds per day.

The ozone remediation system was shut down from October 24 through October 27 to allow the groundwater to reach static equilibrium before the quarterly groundwater monitoring. The remedial system was re-started at the completion of the groundwater monitoring event.

The ozone remediation system was also shut down on November 25, 2005 to prevent interference with the MNA parameter sampling. The remedial system was re-started on November 29 at the completion of the MNA parameter sampling.

The ozone remediation system was also shut down on December 7, 2005 to prevent interference with the overpurge event conducted using MW-4 as an extraction well on December 8, 2005. The remedial system was re-started on December 8 at the completion of the overpurge event.

### **Ozone Microsparge (C-Sparge™) System Effectiveness**

The effectiveness of ozone micro-sporging is monitored by assessing dissolved oxygen (DO) concentrations (**Table 4**) and quarterly analysis of groundwater samples collected from monitoring wells MW-1 through MW-4 and MW-8. The TPHg and benzene concentration and groundwater elevation trends over time in monitoring wells MW-3 and MW-8 are included in **Attachment D**. Concentration trends in MW-4 are not graphed, since SPH had been frequently detected in this well. No SPH was detected in MW-4 during the third and fourth quarter 2005 monitoring events. The fourth quarter 2005 groundwater monitoring results show that the DO concentrations increased in most of the monitoring wells except in MW-3, MW-5, and MW-15.



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### **Soil Vapor Extraction System Description**

The C-Sparge™ system operation began on November 18, 2003. On June 4, 2004, the system was shut down as a result of the presence of volatile organic compound (VOC) vapors escaping from various C-Sparge™ points, monitoring wells, and PVC conduits that house the C-Sparge™ HDPE lines. A work plan to install a small Soil Vapor Extraction (SVE) system to abate the escaping VOC vapors was prepared by ENSR and approved by the Regional Water Quality Control Board, North Coast Region in a letter dated October 15, 2004. The SVE system was installed in May 2005 and became fully operational in June 2005 under a Bay Area Air Quality Management District (BAAQMD) operating permit for plant number 16288.

The SVE system comprises a 1.74 horsepower Nash Elmo G200 blower, a 120-gallon knock-out tank, and two 200-pound granular activated carbon (GAC) canisters installed in series. Two six-inch diameter conduits that convey the C-Sparge™ HDPE lines to the C-Sparge™ master unit and three 2-inch diameter schedule-40 PVC lines linked to the existing vapor extraction wells (VE-1 through VE-3) were connected to the SVE system. The three 4-inch diameter vapor extraction wells were installed in 1994 to a depth of 30 feet bgs. A vacuum measuring approximately 10-60 inches of water is applied to the system. The effluent vapor stream is passed through the GAC canisters before being discharged to the atmosphere. Atmospheric emissions are monitored according to requirements of the BAAQMD permit.

### **Soil Vapor Extraction System Operation and Status**

The highest influent concentration of VOCs (reported as carbon-six) into the SVE system during the fourth quarter 2005 was 18.86 ppmv detected on October 10, 2005 using a Rae photoionization detector (PID) with a 10.6 electron volt (eV) lamp. On October 24, 2005, after being in operation for approximately 3,000 hours, the two spent GAC canisters were replaced with two fresh GAC canisters. The two fresh canisters were installed in series connecting to the intake of the blower. BAAQMD granted ENSR's request to reduce emission monitoring frequency to bi-weekly (at least once every 14 days) on November 21, 2005. On November 29, 2005, the location of the two GAC canisters was switched from the intake of the blower to the discharge of the blower. This switch was made to minimize condensation in the carbon as a result of the colder and wetter winter weather. The locations of the canisters are switched from the intake to the discharge location from time-to-time as an operational modification with the goal of optimizing performance.



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### **Conclusions/Recommendations**

The concentrations of TPHg and benzene in monitoring wells MW-1 and MW-2 increased in the fourth quarter 2005. The concentration increases are believed to be due to lower groundwater elevations. When compared to the third quarter 2005 monitoring results, groundwater elevations in MW-1 and MW-2 decreased by 1.91 feet and 1.59 feet, respectively. The concentrations of TPHg and benzene in monitoring well MW-7 did not change significantly when compared to the third quarter 2005 monitoring results. The concentrations of TPHg and benzene in monitoring wells MW-3 and MW-8 decreased when compared to the third quarter 2005 monitoring results.

ENSR recommends continuation of the current quarterly groundwater monitoring regimen and that C-Sparge™ and SVE system operations to be continued. ENSR also recommends conducting several overpurge events on site using monitoring well MW-4 and MW-8 as extraction wells by applying vacuum to enhance fluid and vapor extraction. Overpurge events are designed to accelerate petroleum hydrocarbon removal and to gather data to assist in the evaluation of technical feasibilities, implementability, and cost effectiveness of alternative remedial approaches for the site.

### **Future Work**

ENSR will continue operation and maintenance of the C-Sparge™ and SVE systems. The first quarter 2006 groundwater monitoring and sampling activities are scheduled for February 2006. Independent overpurge events will be conducted at MW-4 and MW-8 in December 2005 and January 2006. ENSR is preparing for an Engineering Best Practices Review to assess the overall effectiveness of the ozone micro-sparging and SVE systems and to formulate a recommendation for an alternative remedial approach.

### **Remarks/Signatures**

The interpretations in this report represent our professional opinions and are based, in part, on the information supplied by the client. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

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If you have any questions regarding this project, please feel free to contact Mr. Paul Wadding at (916) 362-7100.

Sincerely,

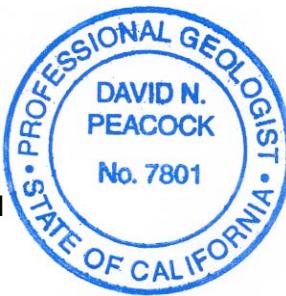
**ENSR Corporation**



Yan Wang, E.I.T.  
Sr. Staff Engineer



D. N. Peacock, Ph.D., P.G. # 7801  
Sr. Project Manager



Paul Wadding, P.E.  
Project Manager

Tables: 1 - Groundwater Monitoring Data and Analytical Results  
2 - Groundwater Analytical Results - Oxygenate Compounds  
3 - Groundwater Analytical Results - Dissolved Metals  
4 - Groundwater Dissolved Oxygen Concentrations

Figures: 1 - Site Location Map  
2 - Site Map  
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6 - Petroleum Hydrocarbon Concentration Map  
7 - Dissolved TPHg Iso-Concentration Map in Shallow Zone  
8 - Dissolved Benzene Iso-Concentration Map in Shallow Zone  
9 - Dissolved MTBE Iso-Concentration Map in Shallow Zone

Attachments:

- A - Field Methods and Procedures
- B - Groundwater Sampling Data Sheets
- C - Laboratory Analytical Results with Chain-of-Custody Documentation
- D - TPHg and Benzene Dissolved Concentration and Groundwater Elevation Trends

cc: Mr. John Frary, Union Oil Company of California  
Mr. Vincent Spiers, Site Owner  
Santa Rosa Fire Department



## TABLES

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-1	04/20/89	--	--	--	4,000	48	27	22	64	--	--	
	08/17/89	--	--	--	2,500	200	83	ND	56	--	--	
	11/15/89	--	--	--	2,000	220	60	30	57	--	--	
	03/26/90	--	--	--	5,900	270	150	180	240	--	--	
	06/06/90	--	--	--	7,600	290	250	310	350	--	--	
	09/27/90	--	--	--	ND	0.32	ND	ND	ND	--	--	
	01/16/91	--	--	--	320	50	2.7	0.68	2.1	--	--	
	04/30/91	--	--	--	700	17	2.1	ND	4.8	--	--	
	07/25/91	--	--	--	2,700	360	110	100	130	--	--	
	10/25/91	--	--	--	8,400	850	410	160	1,100	--	--	
	01/30/92	--	--	--	3,600	630	270	170	170	--	--	
	04/30/92	--	--	--	1,600	88	19	38	45	--	--	
	07/22/92	--	--	--	2,700	260	95	100	120	--	--	
	10/14/92	--	--	--	3,700	740	300	160	220	--	--	
	01/13/93	--	--	--	380	1.4	3.7	1.0	1.4	--	--	
154.80	04/12/93	8.91	145.89	0.00	1,400	91	16	55	37	--	--	
	07/10/93	12.07	142.73	0.00	ND	ND	ND	ND	ND	--	--	
154.51	10/12/93	15.30	139.21	0.00	12,000	400	680	590	1,000	--	--	
	01/10/94	12.90	141.61	0.00	210	0.81	0.58	0.92	2.6	--	--	
	04/20/94	11.09	143.42	0.00	380	3.7	2.6	1.5	1.3	--	--	
	07/14/94	13.76	140.75	0.00	3,700	460	160	120	160	--	--	
	10/18/94	16.46	138.05	0.00	8,000	940	410	270	380	--	--	
	01/16/95	6.55	147.96	0.00	2,500	290	62	140	110	--	--	
	04/13/95	6.73	147.78	0.00	4,700	150	45	170	140	--	--	
	07/20/95	11.25	143.26	0.00	3,600	320	140	210	240	--	--	
	10/17/95	14.62	139.89	0.00	14,000	770	320	270	530	-- <sup>1</sup>	--	
	01/18/96	10.67	143.84	0.00	2,300	82	34	120	98	-- <sup>2</sup>	--	
	04/17/96	8.06	146.45	0.00	2,800	53	24	120	74	-- <sup>2</sup>	--	
	07/18/96	11.31	143.20	0.00	2,000	38	18	61	53	--	--	

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				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-1	10/18/96	14.32	140.19	0.00	3,500	570	140	150	160	--	--	
(Cont.)	01/23/97	9.02	145.49	0.00	92,000	6,800	17,000	1,700	15,000	-- <sup>3</sup>	--	
	04/24/97	9.71	144.80	0.00	2,600	67	15	130	66	--	--	
	07/24/97	13.38	141.13	0.00	2,800	190	110	130	130	--	--	
	10/27-28/97	14.51	140.00	0.00	2,300	56	44	160	120	--	--	
	01/21/98	6.73	147.78	0.00	5,300	48	32	280	130	94	--	
	04/15/98	7.21	147.30	0.00	320	6.3	2.0	15	9.0	56/45 <sup>6</sup>	--	
	07/15/98	10.05	144.46	0.00	1,000	65	ND <sup>5</sup>	91	45	5 <sup>ND/13</sup> <sup>6</sup>	--	
	10/15/98	13.36	141.15	0.00	3,010	163	91.2	150	137	29.8/14.8 <sup>6</sup>	--	
	01/27/99	9.62	144.89	0.00	2,200	92	13	94	35	140/8.5 <sup>6</sup>	--	
	04/22/99	7.56	146.95	0.00	1,300	43	8.9	86	37	87/4.9 <sup>6</sup>	--	
	07/22/99	12.17	142.34	0.00	2,800 <sup>10</sup>	170	72	120	92	120/10 <sup>11</sup>	--	
	10/20/99	12.95	141.56	0.00	330 <sup>12</sup>	2.5	1.1	11	5.5	15	--	
	01/05/00	13.28	141.23	0.00	ND	ND	ND	ND	ND	ND	--	
	04/06/00	8.77	145.74	0.00	1,900 <sup>14</sup>	90	13	110	36	130	--	
	07/21/00	11.81	142.70	0.00	1,770 <sup>12</sup>	174	50.2	99.5	70.4	54.9	--	
	10/30/00	13.81	140.70	0.00	ND	ND	ND	ND	ND	71.8	--	
	01/24/01	12.12	142.39	0.00	3,840 <sup>15</sup>	362	129	180	178	ND <sup>5</sup>	--	
	04/25/01	9.70	144.81	0.00	1,360 <sup>16</sup>	49.7	6.02	38.4	12.8	11.5	--	
	07/25/01	13.21	141.30	0.00	3,000	220	99	130	130	27	--	
	10/24/01	15.63	138.88	0.00	4,600	690	210	300	290	800	--	
154.51	01/23/02 <sup>20</sup>	8.55	145.96	0.00	--	--	--	--	--	--	--	
	01/26/02	8.25	146.26	0.00	860	19	<5.0	34	9.5	80	--	
	04/24/02	9.73	144.78	0.00	1,200	1.9	2.5	22	5.7	28	--	
	07/24/02	12.53	141.98	0.00	150	<0.50	0.90	5.7	<0.50	190	--	
	10/18/02	15.05	139.46	0.00	2,300	7.8	7.9	62	14	90	--	
	02/03-04/03	8.40	146.11	0.00	310	0.91	0.80	<0.50	0.94	86	--	
	04/24/03	8.92	145.59	0.00	120 <sup>24</sup>	1.2	<0.50	<0.50	<0.50	52/70 <sup>6</sup>	--	
	07/30/03	11.62	142.89	0.00	<50	<0.50	<0.50	<0.50	<0.50	80/86 <sup>6</sup>	--	

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WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product						NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)
MW-1	10/16/03	14.02	140.49	0.00	<50	<0.50	<0.50	<0.50	<0.50	31/21 <sup>6</sup>	--
(Cont.)	01/07/04	8.12	146.39	0.00	1,300	200	45	77	49	4.26	--
157.01	05/11/04	10.08	146.93	0.00	500	85	9.9	36	18	1.2	--
	08/05/04	13.00	144.01	0.00	3,900 <sup>25</sup>	340	170	220	240	4.7	--
	11/03/04	13.59	143.42	0.00	6,500 <sup>25</sup>	800	330	480	500	5.5	--
	02/17/05	9.03	147.98	0.00	160 <sup>26</sup>	14	1.1	8.6	1.9	1.4 <sup>6</sup>	--
	05/16/05	7.42	149.59	0.00	720 <sup>26</sup>	86	5.5	42	9.3	2.8 <sup>6</sup>	--
	08/23/05	11.34	145.67	0.00	2,400 <sup>26</sup>	300	120	150	150	<5.0 <sup>6</sup>	--
	<b>10/27/05</b>	<b>13.25</b>	<b>143.76</b>	<b>0.00</b>	<b>4,700<sup>26</sup></b>	<b>470</b>	<b>210</b>	<b>300</b>	<b>300</b>	<b>4.5<sup>6</sup></b>	--
<hr/>											
<b>MW-2</b>	04/20/89	--	--	--	68,000	10,000	9,100	1,900	6,600	--	--
	08/17/89	--	--	--	41,000	7,900	800	680	3,700	--	--
	11/15/89	--	--	--	4,700	1,100	1,800	530	2,100	--	--
	03/26/90	--	--	--	--	--	--	--	--	--	--
	06/06/90	--	--	--	120,000	11,000	20,000	3,800	22,000	--	--
	09/27/90	--	--	--	--	--	--	--	--	--	--
	01/16/91	--	--	--	--	--	--	--	--	--	--
	04/30/91	--	--	--	--	--	--	--	--	--	--
	07/25/91	--	--	--	--	--	--	--	--	--	--
	10/25/91	--	--	--	--	--	--	--	--	--	--
	01/30/92	--	--	--	69,000	11,000	14,000	3,000	14,000	--	--
	04/30/92	--	--	--	63,000	12,000	10,000	2,600	12,000	--	--
	07/22/92	--	--	--	76,000	12,000	11,000	2,700	12,000	--	--
	10/14/92	--	--	--	--	--	--	--	--	--	--
	01/13/93	--	--	--	--	--	--	--	--	--	--
153.96	04/12/93	9.13	144.84**	0.01	--	--	--	--	--	--	--
	07/10/93	12.18	141.78	Sheen	53,000	5,700	12,000	2,500	11,000	--	--
153.65	10/12/93	15.26	138.41**	0.02	--	--	--	--	--	--	--

**Table 1**  
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Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-2	01/10/94	12.61	141.09 <sup>**</sup>	0.07	--	--	--	--	--	--	--	
(Cont.)	04/20/94	11.02	142.64 <sup>**</sup>	0.01	--	--	--	--	--	--	--	
	07/14/94	13.31	140.37 <sup>**</sup>	0.04	--	--	--	--	--	--	--	
	10/18/94	15.95	137.70	0.00	90,000	12,000	8,100	2,600	7,900	--	--	
	01/16/95	6.85	146.82 <sup>**</sup>	0.02	--	--	--	--	--	--	--	
	04/13/95	6.79	146.86	Sheen	80,000	11,000	13,000	2,500	11,000	--	--	
	07/20/95	10.88	142.77	Sheen	72,000	13,000	12,000	2,800	11,000	--	--	
	10/17/95	14.08	139.57	<0.01/Sheen	200,000	11,000	9,100	2,100	11,000	-- <sup>1</sup>	--	
	01/18/96	10.86	142.79	Sheen	540,000	12,000	17,000	8,800	43,000	-- <sup>2</sup>	--	
	04/17/96	8.09	145.56	<0.01/Sheen	64,000	10,000	8,900	2,300	8,700	-- <sup>2</sup>	--	
	07/18/96	11.00	142.65	0.00	68,000	5,400	4,900	2,000	6,000	-- <sup>2</sup>	--	
	10/18/96	13.55	140.10	Sheen	55,000	10,000	4,700	1,900	5,000	--	--	
	01/23/97	8.95	144.70	Sheen	120,000	6,800	19,000	1,600	16,000	-- <sup>3</sup>	--	
	04/24/97	9.66	143.99	Sheen	64,000	12,000	5,500	2,400	5,500	--	--	
	07/24/97	12.80	140.85	<0.01/Sheen	67,000	8,200	5,000	1,900	4,400	--	--	
	10/27/97-28/97	14.15	139.50	Sheen	240,000	7,600	13,000	4,300	24,000	--	--	
	01/21/98 <sup>8</sup>	6.84	146.81	0.00/Sheen	86,000	9,900	7,100	2,100	13,000	1,400	--	
	04/15/98 <sup>8</sup>	7.33	146.32	0.00	81,000	8,300	9,700	2,300	11,000	2,300/49 <sup>6</sup>	--	
	07/15/98 <sup>8</sup>	9.86	143.79	0.00	70,000	10,000	5,600	2,300	7,900	<sup>5</sup> ND/420 <sup>6</sup>	--	
	10/15/98 <sup>8</sup>	12.74	140.91	0.00	74,400	11,400	4,430	2,330	4,880	767/ND <sup>5,6</sup>	--	
	01/27/99 <sup>8</sup>	9.63	144.02	0.00/Sheen	110,000	11,000	11,000	5,100	19,000	4,700/190 <sup>6</sup>	--	
	04/22/99	7.48	146.17	0.00	76,000	10,000	6,000	2,300	8,700	2,700/270 <sup>6</sup>	--	
	07/22/99 <sup>8</sup>	11.64	142.01	0.00	65,000	10,000	5,700	2,100	6,900	<sup>5</sup> ND/340 <sup>11</sup>	--	
	10/20/99 <sup>8</sup>	12.56	141.09	0.00	68,000 <sup>12</sup>	6,000	4,800	2,800	11,000	ND <sup>5</sup>	--	
	01/05/00 <sup>8</sup>	12.66	140.99	0.00	51,200 <sup>12</sup>	4,460	4,600	1,680	7,200	ND <sup>5</sup>	--	
	04/06/00 <sup>8</sup>	8.85	144.80	0.00/Sheen	91,000 <sup>12</sup>	8,200	12,000	3,500	15,000	2,400	--	
	07/21/00 <sup>8</sup>	11.40	142.25	0.00/Sheen	57,900 <sup>12</sup>	9,290	7,120	2,320	7,770	ND <sup>5</sup>	--	
153.65	10/30/00 <sup>8</sup>	13.34	140.31	0.00	50,200 <sup>12</sup>	4,870	4,280	2,050	7,840	1,190	--	
	01/24/01 <sup>8</sup>	11.75	141.90	0.00	96,600 <sup>15</sup>	8,820	6,490	2,770	6,760	ND <sup>5</sup>	--	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-2	04/25/01 <sup>8</sup>	9.46	144.19	0.00	78,500 <sup>17</sup>	9,400	13,700	3,480	14,700	ND <sup>5</sup>	--	
(Cont.)	07/25/01 <sup>8</sup>	12.75	140.90	0.00	62,000	4,200	5,600	2,200	9,700	<1,200	--	
	10/24/01 <sup>8</sup>	15.09	138.56	0.00	84,000	6,200	6,300	2,400	9,600	3,300	--	
	01/23/02 <sup>8,20</sup>	8.17	145.48	0.00	--	--	--	--	--	--	--	
	01/26/02 <sup>8</sup>	7.92	145.73	0.00	45,000	4,400	4,900	1,800	6,700	290	--	
	04/24/02 <sup>8</sup>	9.37	144.28	0.00	64,000	6,100	7,500	2,400	11,000	<250	--	
	07/24/02 <sup>8</sup>	12.45	141.20	0.00	54,000	4,000	4,900	2,300	9,400	270	--	
	10/18/02	INACCESSIBLE - CAR PARKED OVER WELL				--	--	--	--	--	--	
	02/03-04/03 <sup>8</sup>	8.26	145.39	0.00	61,000	6,000	6,000	2,200	10,000	<250	--	
	04/24/03	8.36	145.29	0.00	41,000	5,500	6,200	2,200	9,300	<400/<100 <sup>6</sup>	--	
	07/30/03 <sup>8</sup>	11.34	142.31	0.00	35,000	3,200	3,600	1,800	6,500	1,600/220 <sup>6</sup>	--	
	10/16/03 <sup>8</sup>	13.84	139.81	0.00	41,000	3,200	3,200	1,600	7,800	390/86 <sup>6</sup>	--	
	01/07/04	7.96	145.69	0.00	46,000	6,200	1,900	1,400	7,000	330	--	
156.18	05/11/04	10.75	145.43	0.00	69,000	1,200	1,300	1,500	3,100	280	--	
	08/05/04	12.55	143.63	0.00	37,000 <sup>25</sup>	3,600	380	1,200	3,100	15	--	
	11/03/04	13.01	143.17	0.00	20,000 <sup>25</sup>	3,200	330	1,100	2,200	360	--	
	02/17/05	8.93	147.25	0.00	22,000	1,800	900	910	5,500	100 <sup>6</sup>	--	
	05/16/05	7.51	148.67	0.00	17,000	4,500	520	960	2,700	110 <sup>6</sup>	--	
	08/23/05	11.11	145.07	0.00	15,000 <sup>26</sup>	2,900	140	580	990	400 <sup>6</sup>	--	
	10/27/05	12.70	143.48	0.00	20,000 <sup>26</sup>	2,500	140	770	1,600	350 <sup>6</sup>	--	
MW-3	04/20/89	--	--	--	21,000	900	260	870	1,800	--	--	
	08/17/89	--	--	--	16,000	3,400	480	740	2,400	--	--	
	11/15/89	--	--	--	9,400	1,700	240	180	310	--	--	
	03/26/90	--	--	--	22,000	3,200	450	970	1,600	--	--	
	06/06/90	--	--	--	11,000	2,100	280	350	480	--	--	
	09/27/90	--	--	--	2,000	570	45	22	46	--	--	
	01/16/91	--	--	--	3,100	840	57	95	90	--	--	
	04/30/91	--	--	--	6,700	690	110	250	380	--	--	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-3	07/25/91	--	--	--	3,800	800	110	200	230	--	--	
(Cont.)	10/25/91	--	--	--	3,700	1,300	43	130	59	--	--	
	01/30/92	--	--	--	7,700	2,200	140	410	330	--	--	
	04/30/92	--	--	--	21,000	1,300	310	1,400	2,900	--	--	
	07/22/92	--	--	--	4,400	640	54	130	160	--	--	
	10/14/92	--	--	--	1,600	250	5.2	6.1	14	--	--	
	01/13/93	--	--	--	13,000	290	20	400	460	--	--	
154.19	04/12/93	8.45	145.74	Sheen	18,000	730	250	910	1,800	--	--	
	07/10/93	11.52	142.67	0.00	5,500	180	33	200	280	--	--	
153.86	10/12/93	14.69	139.17	0.00	17,000	800	240	930	1,500	--	--	
	01/10/94	12.45	141.41	0.00	7,700	200	26	260	270	--	--	
	04/20/94	10.51	143.35	0.00	1,300	37	71	590	910	--	--	
	07/14/94	13.14	140.72	0.00	3,900	310	59	220	270	--	--	
	10/18/94	15.83	138.03	0.00	2,200	140	15	61	50	--	--	
	01/16/95	6.45	147.41	0.00	25,000	710	200	1,200	2,300	--	--	
	04/13/95	6.30	147.56	0.00	23,000	670	270	1,400	2,700	--	--	
	07/20/95	10.67	143.19	0.00	13,000	1,400	310	1,200	2,000	--	--	
	10/17/95	13.99	139.87	0.00	3,700	320	36	130	110	-- <sup>1</sup>	--	
	01/18/96	10.35	143.51	0.00	8,800	480	76	500	760	-- <sup>2</sup>	--	
	04/17/96	7.67	146.19	0.00	5,000	330	100	420	540	-- <sup>2</sup>	--	
	07/18/96	10.81	143.05	0.00	21,000	800	700	950	2,300	-- <sup>2</sup>	--	
	10/18/96	13.63	140.23	0.00	1,100	81	15	67	60	--	--	
	01/23/97	8.68	145.18	0.00	50,000	3,600	9,200	930	8,100	-- <sup>4</sup>	--	
	04/24/97	9.21	144.65	0.00	13,000	530	220	1,000	1,500	--	--	
	07/24/97	12.68	141.18	0.00	3,800	200	61	250	270	--	--	
	10/27-28/97	13.84	140.02	0.00	7,000	560	190	280	750	--	--	
	01/21/98	6.54	147.32	0.00	710	15	1.8	6.7	11	70	--	
	04/15/98	6.69	147.17	0.00	4,900	90	28	220	210	160/ND <sup>6</sup>	--	
	07/15/98	9.31	144.55	0.00	9,100	650	290	1,400	1,900	200/20 <sup>6</sup>	--	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-3	10/15/98	12.58	141.28	0.00	3,940	240	49.4	261	216	290/312 <sup>6</sup>	--	
(Cont.)	01/27/99	9.22	144.64	0.00	14,000	540	190	1,100	1,300	570/19 <sup>6</sup>	--	
	04/22/99	7.11	146.75	0.00	11,000	270	140	700	1,000	370/ND <sup>5,6</sup>	--	
	07/22/99	11.41	142.45	0.00	6,000	280	110	500	580	310/220 <sup>11</sup>	--	
	10/20/99	12.42	141.44	0.00	14,000 <sup>12</sup>	680	220	1,200	1,400	70	--	
	01/05/00	12.55	141.31	0.00	8,840 <sup>12</sup>	324	114	671	628	ND <sup>4</sup>	--	
153.86	04/06/00	8.13	145.73	0.00	10,000 <sup>12</sup>	200	150	730	730	420	--	
	07/21/00	11.11	142.75	0.00	3,250 <sup>12</sup>	114	58.4	333	353	147	--	
	10/30/00	13.10	140.76	0.00	1,340 <sup>12</sup>	33.4	5.69	45.6	26.6	36.4	--	
	01/24/01	11.53	142.33	0.00	3,600 <sup>15</sup>	115	36.6	266	228	180	--	
	04/25/01	9.19	144.67	0.00	11,700 <sup>16,18</sup>	64.6	77.7	917	980	11.4	--	
	07/25/01	12.46	141.40	0.00	1,900	39	25	110	100	140	--	
	10/24/01	14.90	138.96	0.00	1,600	79	14	64	27	440	--	
	01/23/02 <sup>20</sup>	8.05	145.81	0.00	--	--	--	--	--	--	--	
	01/26/02	7.79	146.07	0.00	2,700	19	12	180	170	150	--	
	04/24/02	9.16	144.70	0.00	10,000	73	110	680	730	51	--	
	07/24/02	11.71	142.15	0.00	3,500	35	30	210	200	26	--	
	10/18/02	14.18	139.68	0.00	5,000	130	49	320	280	140	--	
	02/03-04/03	8.11	145.75	0.00	680	<0.50	1.8	3.9	8.7	12	--	
	04/24/03	7.89	145.97	0.00	3,300	41	32	320	290	100/<10 <sup>6</sup>	--	
	07/30/03	10.84	143.02	0.00	350	1.5	1.1	1.4	2.4	12/<2.0 <sup>6</sup>	--	
	10/16/03	13.36	140.50	0.00	620	12	7.4	14	25	12/<2.0 <sup>6</sup>	--	
	01/07/04	9.10	144.76	0.00	830	14	7.4	45	43	29	--	
156.37	05/11/04	9.60	146.77	0.00	830	11	9.7	32	24	39	--	
	08/05/04	12.23	144.14	0.00	1,200 <sup>25</sup>	14	9.2	22	16	76	--	
	11/03/04	12.72	143.65	0.00	1,000 <sup>25</sup>	8.3	6.6	17	11	53	--	
	02/17/05	8.49	147.88	0.00	1,100 <sup>26</sup>	4.1	2.1	42	37	7.3 <sup>6</sup>	--	
	05/16/05	6.90	149.47	0.00	1,100 <sup>26</sup>	5.4	3.1	57	52	8.4 <sup>6</sup>	--	
	08/23/05	10.80	145.57	0.00	1,200 <sup>26</sup>	13	4.3	36	26	48 <sup>6</sup>	--	
	10/27/05	12.43	143.94	0.00	640 <sup>26</sup>	7.3	2.9	25	16	56 <sup>6</sup>	--	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-4	04/20/89	--	--	--	100,000	18,000	14,000	2,000	7,900	--	--	
	08/17/89	--	--	--	79,000	7,800	7,600	1,500	6,100	--	--	
	11/15/89	--	--	--	73,000	6,300	1,100	820	3,300	--	--	
	03/26/90	--	--	--	--	--	--	--	--	--	--	
	06/06/90	--	--	--	--	--	--	--	--	--	--	
	09/27/90	--	--	--	--	--	--	--	--	--	--	
	01/16/91	--	--	--	--	--	--	--	--	--	--	
	04/30/91	--	--	--	--	--	--	--	--	--	--	
	07/25/91	--	--	--	--	--	--	--	--	--	--	
	10/25/91	--	--	--	--	--	--	--	--	--	--	
	01/30/92	--	--	--	--	--	--	--	--	--	--	
	04/30/92	--	--	--	--	--	--	--	--	--	--	
	07/22/92	--	--	--	100,000	21,000	27,000	4,000	21,000	--	--	
	10/14/92	--	--	--	--	--	--	--	--	--	--	
	01/13/93	--	--	--	--	--	--	--	--	--	--	
153.88	04/12/93	8.70	145.20**	0.03	--	--	--	--	--	--	--	
	07/10/93	11.60	142.28	Sheen	100,000	20,000	35,000	3,600	19,000	--	--	
153.13	10/12/93	14.72	138.55**	0.19	--	--	--	--	--	--	--	
	01/10/94	11.92	141.32**	0.15	--	--	--	--	--	--	--	
	04/20/94	10.08	143.11**	0.08	--	--	--	--	--	--	--	
	07/14/94	12.52	140.63**	0.02	--	--	--	--	--	--	--	
	10/18/94	15.40	137.84**	0.14	--	--	--	--	--	--	--	
	01/16/95	5.97	147.73**	0.76	--	--	--	--	--	--	--	
	04/13/95	5.95	147.18	<0.01/Sheen	94,000	15,000	13,000	2,800	14,000	--	--	
	07/20/95	10.20	142.95**	0.02	--	--	--	--	--	--	--	
	10/17/95	13.33	139.80	<0.01/Sheen	95,000	14,000	14,000	1,800	9,400	--	--	
	01/18/96	8.80	144.33	<0.01/Sheen	340,000	14,000	19,000	6,200	34,000	-- <sup>2</sup>	--	
	04/17/96	7.32	145.81	Sheen	67,000	13,000	11,000	2,400	11,000	-- <sup>2</sup>	--	
	07/18/96	10.28	142.85	<0.01/Sheen	91,000	8,900	8,900	2,400	9,400	-- <sup>2</sup>	--	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-4	10/18/96	12.72	140.41	<0.01/Sheen	110,000	15,000	13,000	3,700	17,000	--	--	
(Cont.)	01/23/97	8.34	144.80**	0.01	130,000	7,300	21,000	1,800	18,000	-- <sup>3</sup>	--	
	04/24/97	8.96	144.17	<0.01/Sheen	160,000	15,000	13,000	3,700	17,000	--	--	
	07/24/97	12.07	141.06	<0.01/Sheen	130,000	11,000	13,000	2,600	13,000	--	--	
	10/27-28/97	13.40	139.73	Sheen	200,000	14,000	27,000	4,100	24,000	--	--	
	01/21/98 <sup>8</sup>	5.72	147.41	0.00/Sheen	130,000	11,000	21,000	2,700	16,000	ND <sup>5</sup>	--	
	04/15/98 <sup>8</sup>	6.87	146.26	0.00	89,000	13,000	19,000	2,800	15,000	2,600/36 <sup>6</sup>	--	
	07/15/98 <sup>8</sup>	9.10	144.03	0.00	120,000	15,000	14,000	3,600	18,000	5ND/ND <sup>5,6</sup>	--	
	10/15/98 <sup>8</sup>	12.10	141.03	0.00/Sheen	128,000	18,000	15,900	3,450	17,400	307/ND <sup>5,6</sup>	--	
	01/27/99 <sup>8</sup>	8.72	144.41	0.00/Sheen	120,000	15,000	16,000	3,500	18,000	5ND/57 <sup>6</sup>	--	
	04/22/99	6.71	146.42	0.00	110,000	14,000	13,000	2,800	15,000	2,800/ND <sup>5,6</sup>	--	
	07/22/99 <sup>8</sup>	11.06	142.07	0.00/Sheen	120,000	16,000	14,000	3,100	15,000	5ND/ND <sup>11</sup>	--	
	10/20/99 <sup>13</sup>	12.02	141.11	0.00	140,000 <sup>12</sup>	11,000	21,000	5,800	25,000	2,900	--	
	01/05/00 <sup>13</sup>	12.36	140.77	0.00	83,800 <sup>12</sup>	4,400	12,800	2,360	14,300	ND <sup>5</sup>	--	
	04/06/00	7.77	145.36	0.00/Sheen	200,000 <sup>12</sup>	15,000	20,000	5,700	25,000	ND <sup>5</sup>	--	
	07/21/00	10.75	142.38	0.00/Sheen	73,400 <sup>12</sup>	13,900	12,600	2,650	12,400	ND <sup>5</sup>	--	
	10/30/00	12.77	140.36	0.00	96,900 <sup>12</sup>	4,230	17,000	3,440	22,400	ND <sup>5</sup>	--	
	01/24/01	10.97	142.16	0.00	335,000 <sup>15</sup>	5,880	18,700	6,500	29,500	ND <sup>5</sup>	--	
153.13	04/25/01	8.75	144.38	0.00	87,700 <sup>17,18</sup>	14,200	16,200	3,740	17,700	43.3	--	
	07/25/01	12.03	141.10	0.00	120,000	9,200	17,000	3,400	19,000	<500	--	
	10/24/01 <sup>19</sup>	14.75	138.75**	0.49	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	01/23/02 <sup>21</sup>	7.44	145.86**	0.22	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	04/24/02	8.81	144.36**	0.05	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	07/24/02 <sup>22</sup>	11.53	141.65**	0.06	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	10/18/02 <sup>22</sup>	13.81	139.37**	0.07	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	02/03-04/03 <sup>22</sup>	7.16	146.03**	0.08	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	04/24/03	7.60	145.60**	0.09	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	07/30/03	10.68	142.50**	0.06	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-4	10/16/03	13.59	139.54	0.00	82,000	6,400	9,800	2,200	20,000	<200/<200 <sup>6</sup>	--	
(Cont.)	01/07/04	7.21	145.92	0.00	88,000	9,400	6,400	2,200	16,000	50	--	
155.64	05/11/04	9.30	146.34	0.00	51,000	2,400	2,900	1,400	6,600	12	--	
	08/05/04	11.85	143.79	0.00/Sheen	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	11/02/04	12.52	143.12	0.00/Sheen	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	02/17/05	--	--	0.00/Sheen	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	05/16/05	9.60	146.04	0.00	30,000	5,800	2,600	1,400	8,700	13 <sup>6</sup>	--	
	08/23/05	10.28	145.36	0.00	47,000 <sup>26</sup>	8,500	1,700	1,000	5,700	56 <sup>6</sup>	--	
	<b>10/27/05</b>	<b>12.50</b>	<b>143.14</b>	<b>0.00</b>	<b>38,000<sup>26</sup></b>	<b>9,600</b>	<b>2,200</b>	<b>1,600</b>	<b>7,900</b>	<b>71<sup>6</sup></b>	--	
<b>MW-5</b>	11/15/89	--	--	--	ND	ND	ND	ND	ND	--	--	
	03/26/90	--	--	--	ND	ND	ND	ND	ND	--	--	
	06/06/90	--	--	--	ND	ND	ND	ND	ND	--	--	
	09/27/90	--	--	--	ND	ND	ND	ND	ND	--	--	
	01/16/91	--	--	--	14	1.2	2.3	0.53	2.3	--	--	
	04/30/91	--	--	--	ND	ND	ND	ND	ND	--	--	
	07/25/91	--	--	--	ND	ND	ND	ND	ND	--	--	
	10/25/91	--	--	--	ND	ND	ND	ND	ND	--	--	
	01/30/92	--	--	--	ND	ND	ND	ND	ND	--	--	
	04/30/92	--	--	--	ND	ND	ND	ND	ND	--	--	
	07/22/92	--	--	--	ND	ND	ND	ND	ND	--	--	
	10/14/92	--	--	--	ND	ND	ND	ND	ND	--	--	
	01/13/93	--	--	--	ND	ND	ND	ND	ND	--	--	
153.42	04/12/93	8.25	145.17	0.00	ND	ND	ND	ND	ND	--	--	
	07/10/93	11.31	142.11	0.00	SAMPLED SEMI-ANNUALLY							
153.01	10/12/93	14.40	138.61	0.00	ND	ND	ND	ND	ND	--	--	
	01/10/94	12.07	140.94	0.00	--	--	--	--	--	--	--	
	04/20/94	10.36	142.65	0.00	ND	ND	ND	ND	1.4	--	--	
	07/14/94	13.20	139.81	0.00	--	--	--	--	--	--	--	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-5	10/18/94	15.96	137.05	0.00	ND	ND	ND	ND	0.75	--	--	
(Cont.)	01/16/95	5.79	147.22	0.00	--	--	--	--	--	--	--	
	04/13/95	6.18	146.83	0.00	ND	ND	ND	ND	ND	--	--	
	07/20/95	10.77	142.24	0.00	--	--	--	--	--	--	--	
	10/17/95	14.18	138.83	0.00	ND	ND	ND	ND	ND	--	--	
	01/18/96	9.88	143.13	0.00	--	--	--	--	--	--	--	
	04/17/96	7.50	145.51	0.00	ND	ND	ND	ND	ND	--	--	
	07/18/96	10.80	142.21	0.00	--	--	--	--	--	--	--	
	10/18/96	13.85	139.16	0.00	ND	ND	ND	ND	ND	--	--	
	01/23/97	8.39	144.62	0.00	--	--	--	--	--	--	--	
	04/24/97	9.01	144.00	0.00	ND	ND	ND	ND	ND	--	--	
	07/24/97	12.80	140.21	0.00	--	--	--	--	--	--	--	
	10/27-28/97	14.30	138.71	0.00	ND	ND	ND	ND	ND	--	--	
	01/21/98	6.00	147.01	0.00	--	--	--	--	--	--	--	
	04/15/98	6.60	146.41	0.00	ND	ND	ND	ND	ND	ND/ND <sup>6</sup>	--	
	07/15/98	9.42	143.59	0.00	--	--	--	--	--	--	--	
	10/15/98	12.76	140.25	0.00	ND	ND	ND	ND	ND	ND/ND <sup>6</sup>	--	
	01/27/99	8.92	144.09	0.00	--	--	--	--	--	--	--	
	04/22/99 <sup>9</sup>	6.86	146.15	0.00	ND	ND	ND	ND	ND	ND/ND <sup>6</sup>	--	
	07/22/99	11.52	141.49	0.00	--	--	--	--	--	--	--	
	10/20/99	12.38	140.63	0.00	ND	ND	ND	ND	ND	ND	--	
	01/05/00	12.49	140.52	0.00	--	--	--	--	--	--	--	
	04/06/00	7.95	145.06	0.00	ND	ND	ND	ND	ND	3.2	--	
	07/21/00	10.93	142.08	0.00	SAMPLED SEMI-ANNUALLY							
	10/30/00	13.32	139.69	0.00	ND	ND	ND	ND	ND	ND	--	
	01/24/01	11.36	141.65	0.00	--	--	--	--	--	--	--	
	04/25/01	8.78	144.23	0.00	ND	ND	ND	ND	1.06	1.47	--	
	07/25/01	12.55	140.46	0.00	--	--	--	--	--	--	--	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-5	10/24/01	15.00	138.01	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	
(Cont.)	01/23/02	7.60	145.41	0.00	--	--	--	--	--	--	--	
	04/24/02	9.00	144.01	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	
	07/24/02	12.07	140.94	0.00	--	--	--	--	--	--	--	
	10/18/02	INACCESSIBLE - CAR PARKED OVER WELL				--	--	--	--	--	--	
	02/03-04/03	7.47	145.54	0.00	SAMPLED SEMI-ANNUALLY			--	--	--	--	
	04/24/03	7.50	145.51	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.0/<2.0 <sup>6</sup>	--	
	07/30/03	10.96	142.05	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.0/<2.0 <sup>6</sup>	--	
	10/16/03	13.45	139.56	0.00	<50	<0.50	0.73	<0.50	1.1	<2.0/<2.0 <sup>6</sup>	--	
	01/07/04	7.30	145.71	0.00	<50	<0.50	<0.50	<0.50	<1.0	0.8	--	
156.54	05/11/04	9.22	147.32	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
	08/05/04	12.26	144.28	0.00	<50	<0.50	<0.50	<0.50	<1.0	0.79	--	
	11/03/04	12.67	143.87	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
	02/17/05	8.20	148.34	0.00	<50	<0.50	<0.50	0.56	2.2	<0.50 <sup>6</sup>	--	
	05/16/05	7.77	148.77	0.00	<50	4.5	1.7	2.0	12	0.82 <sup>6</sup>	--	
	08/23/05	10.68	145.86	0.00	<50	<0.50	<0.50	<0.50	<1.0	0.71 <sup>6</sup>	--	
	<b>10/27/05</b>	<b>12.54</b>	<b>144.00</b>	<b>0.00</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>0.64<sup>6</sup></b>	--	
MW-6	06/06/90	--	--	--	ND	2.0	6.0	0.64	3.2	--	--	
	09/27/90	--	--	--	ND	ND	ND	ND	ND	--	--	
	01/16/91	--	--	--	ND	ND	0.18	ND	0.51	--	0.15	
	04/30/91	--	--	--	ND	ND	ND	ND	ND	--	--	
	07/25/91	--	--	--	ND	ND	ND	ND	ND	--	ND	
	10/25/91	--	--	--	ND	ND	ND	ND	ND	--	--	
	01/30/92	--	--	--	ND	ND	ND	ND	ND	--	ND	
	04/30/92	--	--	--	ND	ND	ND	ND	ND	--	--	
	07/22/92	--	--	--	ND	ND	ND	ND	ND	--	ND	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-6	10/14/92	--	--	--	ND	ND	ND	ND	ND	--	--	
(Cont.)	01/13/93	--	--	--	ND	ND	ND	ND	ND	--	25	
152.88	04/12/93	6.98	145.90	0.00	ND	ND	ND	ND	ND	--	--	
	07/10/93	10.02	142.86	0.00	SAMPLED SEMI-ANNUALLY							
152.64	10/12/93	13.29	139.35	0.00	ND	ND	ND	ND	ND	--	1.2	
	01/10/94	10.84	141.80	0.00	--	--	--	--	--	--	--	
	04/20/94	9.72	142.92	0.00	ND	ND	ND	ND	ND	--	0.29	
	07/14/94	13.34	139.30	0.00	--	--	--	--	--	--	--	
	10/18/94	16.02	136.62	0.00	ND	ND	ND	ND	ND	--	ND	
	01/16/95	4.91	147.73	0.00	--	--	--	--	--	--	--	
	04/13/95	5.29	147.35	0.00	ND	ND	ND	ND	ND	--	68	
	07/20/95	9.79	142.85	0.00	--	--	--	--	--	--	--	
	10/17/95	14.25	138.39	0.00	ND	ND	ND	ND	ND	--	0.63	
	01/18/96	8.88	143.76	0.00	--	--	--	--	--	--	--	
	04/17/96	6.53	146.11	0.00	ND	ND	ND	ND	ND	--	6.8	
	07/18/96	9.83	142.81	0.00	SAMPLED SEMI-ANNUALLY							
	10/18/96	14.02	138.62	0.00	ND	ND	ND	ND	ND	--	3.4	
	01/23/97	7.62	145.02	0.00	--	--	--	--	--	--	--	
	04/24/97	8.50	144.14	0.00	ND	ND	ND	ND	ND	--	0.96	
	07/24/97	13.11	139.53	0.00	--	--	--	--	--	--	--	
	10/27-28/97	14.38	138.26	0.00	ND	ND	ND	ND	ND	--	ND	
	01/21/98	5.26	147.38	0.00	--	--	--	--	--	--	--	
	04/15/98	7.14	145.50	0.00	ND	ND	ND	ND	ND	ND/ND <sup>6</sup>	ND	
	07/15/98	8.86	143.78	0.00	--	--	--	--	--	--	--	
	10/15/98 <sup>7</sup>	13.18	139.46	0.00	ND	ND	ND	ND	ND	ND/ND <sup>6</sup>	ND	
	01/27/99	8.62	144.02	0.00	--	--	--	--	--	--	--	
	04/22/99	6.28	146.36	0.00	ND	ND	ND	ND	ND	ND/ND <sup>6</sup>	4.3	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-6	07/22/99	11.61	141.03	0.00	--	--	--	--	--	--	--	
(Cont.)	10/20/99	12.73	139.91	0.00	ND	ND	ND	ND	ND	ND	0.50	
	01/05/00	13.07	139.57	0.00	--	--	--	--	--	--	--	
	04/06/00	7.47	145.17	0.00	ND	ND	ND	ND	ND	ND	5.3	
	07/21/00	11.32	141.32	0.00	--	--	--	--	--	--	--	
	10/30/00	13.75	138.89	0.00	ND	ND	ND	ND	ND	ND	ND	
	01/24/01	11.75	140.89	0.00	--	--	--	--	--	--	--	
152.64	04/25/01	8.63	144.01	0.00	ND	ND	ND	ND	ND	ND	1.5	
	07/25/01	12.96	139.68	0.00	--	--	--	--	--	--	--	
	10/24/01	15.16	137.48	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.6	
	01/23/02	6.86	145.78	0.00	SAMPLED SEMI-ANNUALLY				--	--	--	
	04/24/02	8.38	144.26	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.760	
	07/24/02	12.24	140.40	0.00	--	--	--	--	--	--	--	
	10/18/02	14.75	137.89	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	<0.20 <sup>23</sup>	
	02/03-04/03	6.83	145.81	0.00	SAMPLED SEMI-ANNUALLY				--	--	--	
	04/24/03	7.28	145.36	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.0/<2.0 <sup>6</sup>	--	
	07/30/03	11.02	141.62	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.0/<2.0 <sup>6</sup>	--	
	10/16/03	13.86	138.78	0.00	<50	<0.50	0.71	<0.50	1.1	<2.0/<2.0 <sup>6</sup>	--	
	01/07/04	6.82	145.82	0.00	220	<0.50	<0.50	<0.50	<1.0	<0.50	--	
156.18	05/11/04	8.93	147.25	0.00	74	1.6	3.6	2.7	12	<0.50	--	
	08/05/04	12.93	143.25	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
	11/03/04	13.61	142.57	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
	02/17/05	7.91	148.27	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50 <sup>6</sup>	--	
	05/16/05	6.80	149.38	0.00	<50	0.53	<0.50	<0.50	2.0	<0.50 <sup>6</sup>	--	
	08/23/05	10.79	145.39	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	<b>10/27/05</b>	<b>13.10</b>	<b>143.08</b>	<b>0.00</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50<sup>6</sup></b>	--	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-7	06/06/90	--	--	--	ND	0.3	3.6	ND	0.52	--	--	
	09/27/90	--	--	--	ND	ND	ND	ND	ND	--	--	
	01/16/91	--	--	--	ND	0.59	0.42	ND	0.3	--	0.34	
	04/30/91	--	--	--	ND	ND	ND	ND	ND	--	--	
	07/25/91	--	--	--	ND	ND	ND	ND	ND	--	ND	
	10/25/91	--	--	--	ND	ND	ND	ND	ND	--	--	
	01/30/92	--	--	--	ND	ND	ND	ND	ND	--	ND	
	04/30/92	--	--	--	ND	ND	ND	ND	ND	--	--	
	07/22/92	--	--	--	ND	ND	ND	ND	ND	--	ND	
	10/14/92	--	--	--	ND	ND	ND	ND	ND	--	--	
152.51	01/13/93	--	--	--	ND	ND	ND	ND	ND	--	25	
	04/12/93	7.55	144.96	0.00	ND	ND	ND	ND	ND	--	--	
152.23	07/10/93	10.47	142.04	0.00	SAMPLED SEMI-ANNUALLY				--	--	--	
	10/12/93	13.72	138.51	0.00	ND	ND	ND	ND	ND	--	2.8	
	01/10/94	11.22	141.01	0.00	--	--	--	--	--	--	--	
	04/20/94	10.08	142.15	0.00	ND	ND	ND	ND	0.58	--	0.27	
	07/14/94	12.90	139.33	0.00	--	--	--	--	--	--	--	
	10/18/94	15.56	136.67	0.00	ND	ND	ND	ND	0.99	--	ND	
	01/16/95	5.31	146.92	0.00	--	--	--	--	--	--	--	
	04/13/95	5.92	146.31	0.00	ND	0.86	ND	ND	ND	--	ND	
	07/20/95	10.40	141.83	0.00	--	--	--	--	--	--	--	
	10/17/95	13.74	138.49	0.00	ND	ND	ND	ND	ND	-- <sup>1</sup>	ND	
	01/18/96	9.46	142.77	0.00	--	--	--	--	--	--	--	
	04/17/96	7.08	145.15	0.00	ND	ND	ND	ND	ND	--	0.42	
	07/18/96	10.03	142.20	0.00	--	--	--	--	--	--	--	
	10/18/96	13.31	138.92	0.00	ND	ND	ND	ND	ND	--	0.81	
	01/23/97	8.01	144.22	0.00	--	--	--	--	--	--	--	
	04/24/97	8.95	143.28	0.00	ND	ND	ND	ND	ND	--	ND	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-7	07/24/97	12.40	139.83	0.00	--	--	--	--	--	--	--	
(Cont.)	10/27-28/97	13.87	138.36	0.00	ND	ND	ND	ND	ND	--	ND	
	01/21/98	5.40	146.83	0.00	--	--	--	--	--	--	--	
	04/15/98	7.18	145.05	0.00	ND	ND	ND	ND	ND	ND/ND <sup>6</sup>	ND	
	07/15/98	9.01	143.22	0.00	--	--	--	--	--	--	--	
	10/15/98 <sup>7</sup>	12.51	139.72	0.00	ND	ND	ND	ND	ND	ND/ND <sup>6</sup>	ND	
	01/27/99	8.67	143.56	0.00	--	--	--	--	--	--	--	
	04/22/99	6.78	145.45	0.00	ND	ND	ND	ND	ND	ND/ND <sup>6</sup>	0.23	
	07/22/99	11.38	140.85	0.00	--	--	--	--	--	--	--	
	10/20/99	12.62	139.61	0.00	ND	ND	ND	ND	ND	ND	0.11	
	01/05/00	12.85	139.38	0.00	--	--	--	--	--	--	--	
	04/06/00	7.87	144.36	0.00	ND	ND	ND	ND	ND	ND	ND	
	07/21/00	11.10	141.13	0.00	SAMPLED SEMI-ANNUALLY			--	--	--	--	
	10/30/00	13.61	138.62	0.00	ND	ND	ND	ND	ND	ND	ND	
	01/24/01	11.23	141.00	0.00	--	--	--	--	--	--	--	
	04/25/01	8.86	143.37	0.00	95.7 <sup>16</sup>	ND	ND	ND	ND	ND	ND	
	07/25/01	12.44	139.79	0.00	--	--	--	--	--	--	--	
	10/24/01	14.68	137.55	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	<1.0	
	01/23/02	7.33	144.90	0.00	--	--	--	--	--	--	--	
152.23	04/24/02	8.76	143.47	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.470	
	07/24/02	11.82	140.41	0.00	SAMPLED SEMI-ANNUALLY			--	--	--	--	
	10/18/02	14.23	138.00	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	<0.20 <sup>23</sup>	
	02/03-04/03	7.34	144.89	0.00	SAMPLED SEMI-ANNUALLY			--	--	--	--	
	04/24/03	7.77	144.46	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.0/<2.0 <sup>6</sup>	--	
	07/30/03	10.81	141.42	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.0/<2.0 <sup>6</sup>	--	
	10/16/03	13.69	138.54	0.00	<50	<0.50	0.69	<0.50	1.0	<2.0/<2.0 <sup>6</sup>	--	
	01/07/04	7.37	144.86	0.00	220	<0.50	<0.50	<0.50	<1.0	<0.50	--	
155.78	05/11/04	9.20	146.58	0.00	210	3.9	4.8	3.4	13	<0.50	--	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg ( $\mu\text{g/L}$ )	B ( $\mu\text{g/L}$ )	T ( $\mu\text{g/L}$ )	E ( $\mu\text{g/L}$ )	X ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )	AS NO <sup>3</sup> ( $\mu\text{g/L}$ )	
MW-7	08/05/04	12.36	143.42	0.00	79 <sup>25</sup>	0.91	<0.50	<0.50	<1.0	<0.50	--	
	(Cont.) 11/03/04	13.00	142.78	0.00	<50	0.70	<0.50	<0.50	<1.0	<0.50	--	
	02/17/05	8.02	147.76	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	05/16/05	7.57	148.21	0.00	76 <sup>26</sup>	0.62	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	08/23/05	10.70	145.08	0.00	230 <sup>26</sup>	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	<b>10/27/05</b>	<b>12.61</b>	<b>143.17</b>	<b>0.00</b>	<b>230<sup>26</sup></b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50<sup>6</sup></b>	--	
MW-8	11/15/89	--	--	--	30,000	3,300	1,900	490	2,000	--	--	
	03/26/90	--	--	--	52,000	6,500	5,400	1,400	4,500	--	--	
	06/06/90	--	--	--	45,000	6,200	4,100	1,100	3,600	--	--	
	09/27/90	--	--	--	28,000	3,800	1,500	720	1,800	--	--	
	01/16/91	--	--	--	ND	ND	ND	ND	ND	--	--	
	04/30/91	--	--	--	--	--	--	--	--	--	--	
	07/25/91	--	--	--	32,000	4,800	4,200	1,400	3,900	--	--	
	10/25/91	--	--	--	51,000	5,400	3,000	1,100	3,000	--	--	
	01/30/92	--	--	--	29,000	2,800	2,200	1,100	2,800	--	--	
	04/30/92	--	--	--	57,000	5,000	6,100	1,700	7,100	--	--	
	07/22/92	--	--	--	42,000	4,800	4,300	1,300	3,700	--	--	
	10/14/92	--	--	--	4,800	580	230	130	190	--	--	
	01/13/93	--	--	--	26,000	1,600	1,600	830	2,000	--	--	
153.44	04/12/93	8.58	144.86	0.00	41,000	4,200	3,200	1,200	2,800	--	--	
	07/10/93	11.66	141.78	0.00	38,000	2,000	4,200	1,600	4,400	--	--	
153.13	10/12/93	14.72	138.41	<0.01	--	--	--	--	--	--	--	
	01/10/94	12.11	141.02	Sheen	30,000	2,000	2,100	1,100	2,600	--	--	
	04/20/94	10.37	142.76	0.00	43,000	3,700	4,400	1,400	3,700	--	--	
	07/14/94	12.72	140.41	0.00	24,000	4,900	3,800	1,300	3,000	--	--	
	10/18/94	15.36	137.77	0.00	46,000	3,100	2,900	1,300	2,700	--	--	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-8	01/16/95	6.17	146.96	0.00	41,000	4,000	2,000	1,000	1,800	--	--	
(Cont.)	04/13/95	6.97	146.16	0.00	50,000	7,200	7,100	1,700	5,500	--	--	
	07/20/95	10.78	142.35	Sheen	33,000	4,300	4,600	1,300	3,800	--	--	
	10/17/95	13.61	139.52	Sheen	110,000	2,500	2,800	1,100	3,200	-- <sup>1</sup>	--	
	01/18/96	9.80	143.33	0.00	26,000	3,100	2,100	1,100	2,700	-- <sup>2</sup>	--	
	04/17/96	7.98	145.15	0.00	40,000	5,600	5,600	1,400	4,300	-- <sup>2</sup>	--	
	07/18/96	10.66	142.47	0.00	47,000	3,000	2,800	1,600	3,900	-- <sup>2</sup>	--	
	10/18/96	13.18	139.95	Sheen	45,000	3,000	2,600	1,100	2,800	--	--	
	01/23/97	8.27	144.86	0.00	110,000	7,900	21,000	2,000	18,000	-- <sup>3</sup>	--	
	04/24/97	9.49	143.64	Sheen	33,000	2,700	2,500	1,100	2,500	--	--	
	07/24/97	12.32	140.81	Sheen	40,000	2,100	3,000	1,100	2,800	--	--	
	10/27-28/97	13.68	139.45	Sheen	20,000	1,000	1,000	660	1,900	--	--	
	01/21/98	6.32	146.81	0.00	13,000	840	730	70	1,300	ND <sup>5</sup>	--	
	04/15/98	7.59	145.54	0.00	40,000	4,500	4,800	1,500	4,200	1,400/ND <sup>6</sup>	--	
	07/15/98	9.63	143.50	0.00	36,000	4,500	4,400	1,500	4,200	6,200/ND <sup>6</sup>	--	
	10/15/98	12.35	140.78	0.00	32,600	2,880	2,770	1,120	2,890	ND/ND <sup>5,6</sup>	--	
	01/27/99	9.02	144.11	0.00	31,000	2,500	2,800	1,300	3,500	<sup>5</sup> ND/ND <sup>6</sup>	--	
	04/22/99	7.32	145.81	0.00	43,000	3,600	4,800	1,700	4,800	<sup>5</sup> ND/71 <sup>6</sup>	--	
	07/22/99	11.50	141.63	0.00	45,000	4,500	4,800	1,500	4,800	<sup>5</sup> ND/ND <sup>11</sup>	--	
	10/20/99	12.31	140.82	0.00	21,000 <sup>12</sup>	780	ND <sup>5</sup>	570	1,900	ND <sup>5</sup>	--	
	01/05/00	12.42	140.71	0.00	12,700 <sup>12</sup>	737	674	488	1,010	ND <sup>5</sup>	--	
	04/06/00	8.24	144.89	0.00/Sheen	37,000 <sup>12</sup>	4,400	4,700	1,500	4,000	1,700	--	
	07/21/00	11.16	141.97	0.00/Sheen	22,200 <sup>12</sup>	3,110	1,590	862	2,070	1,330	--	
	10/30/00	12.88	140.25	0.00	13,200 <sup>12</sup>	693	815	632	1,300	ND <sup>5</sup>	--	
	01/24/01	11.32	141.81	0.00	27,300 <sup>15</sup>	3,060	1,570	972	2,270	472	--	
	04/25/01	9.24	143.89	0.00	31,900 <sup>17</sup>	2,390	2,960	1,520	3,550	20.0	--	
	07/25/01	12.30	140.83	0.00	32,000	2,900	2,200	930	2,600	<250	--	
	10/24/01	14.48	138.65	0.00	20,000	2,000	860	830	1,500	1,800	--	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-8	01/23/02 <sup>20</sup>	7.91	145.22	0.00	--	--	--	--	--	--	--	
(Cont.)	01/26/02	7.70	145.43	0.00	25,000	2,100	1,900	1,100	2,300	<250	--	
	04/24/02	9.30	143.83	0.00	32,000	2,300	2,100	970	2,400	57	--	
	07/24/02	11.86	141.27	0.00	24,000	950	740	880	2,000	90	--	
	10/18/02	14.02	139.11	0.00	30,000	2,100	2,400	1,200	3,600	<120	--	
153.13	02/03-04/03	7.75	145.38	0.00	15,000	1,800	880	630	720	<50	--	
	04/24/03	8.33	144.80	0.00	15,000	2,500	2,300	970	2,000	190/<40 <sup>6</sup>	--	
	07/30/03	11.08	142.05	0.00	7,800	540	310	250	520	320/<10 <sup>6</sup>	--	
	10/16/03	13.42	139.71	0.00	9,800	800	430	370	710	160/<20 <sup>6</sup>	--	
	01/07/04	7.80	145.33	0.00	10,000	950	220	170	880	<2.5	--	
155.62	05/11/04	10.55	145.07	0.00	2,100	120	27	64	72	<2.5	--	
	08/05/04	12.55	143.07	0.00	14,000 <sup>25</sup>	870	180	390	390	<0.50	--	
	11/03/04	12.70	142.92	0.00	12,000 <sup>25</sup>	740	200	500	500	<0.50	--	
	02/17/05	8.65	146.97	0.00	7,000 <sup>26</sup>	410	230	220	520	<5.0 <sup>6</sup>	--	
	05/16/05	7.44	148.18	0.00	12,000	950	310	520	990	<10.0 <sup>6</sup>	--	
	08/23/05	11.61	144.01	0.00	16,000 <sup>26</sup>	1,300	100	290	230	<0.50 <sup>6</sup>	--	
	10/27/05	12.50	143.12	0.00	12,000 <sup>25, 26</sup>	1,100	85	310	260	<5.0 <sup>6</sup>	--	
MW-9	11/15/89	--	--	--	ND	ND	ND	ND	ND	--	--	
	03/26/90	--	--	--	44	0.92	0.5	1.3	ND	--	--	
	06/06/90	--	--	--	ND	ND	0.5	ND	ND	--	--	
	09/27/90	--	--	--	ND	ND	0.62	ND	ND	--	--	
	01/16/91	--	--	--	ND	ND	ND	ND	0.3	--	--	
	04/30/91	--	--	--	ND	ND	ND	ND	ND	--	--	
	07/25/91	--	--	--	ND	ND	ND	ND	ND	--	--	
	10/25/91	--	--	--	ND	ND	ND	ND	ND	--	--	
	01/30/92	INACCESSIBLE	--	--	--	--	--	--	--	--	--	
	04/30/92	--	--	--	ND	ND	ND	ND	ND	--	--	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-9	07/22/92	--	--	--	ND	ND	ND	ND	ND	--	--	
(Cont.)	10/14/92	--	--	--	ND	ND	ND	ND	ND	--	--	
	01/13/93	--	--	--	ND	ND	ND	ND	ND	--	--	
152.99	04/12/93	7.67	145.32	0.00	ND	ND	ND	ND	ND	--	--	
	07/10/93	10.82	142.17	0.00	SAMPLED SEMI-ANNUALLY							
152.67	10/12/93	14.00	138.67	0.00	ND	ND	ND	ND	ND	--	--	
	01/10/94	10.22	142.45	0.00	--	--	--	--	--	--	--	
	04/20/94	8.70	143.97	0.00	ND	ND	ND	ND	ND	--	--	
	07/14/94	10.38	142.29	0.00	--	--	--	--	--	--	--	
	10/18/94	12.76	139.91	0.00	ND	ND	ND	ND	ND	--	--	
	01/16/95	6.11	146.56	0.00	--	--	--	--	--	--	--	
	04/13/95	6.88	145.79	0.00	ND	ND	ND	ND	ND	--	--	
	07/20/95	8.92	143.75	0.00	--	--	--	--	--	--	--	
	10/17/95	11.11	141.56	0.00	ND	ND	ND	ND	ND	--	--	
	01/18/96	8.10	144.57	0.00	--	--	--	--	--	--	--	
	04/17/96	7.27	145.40	0.00	ND	ND	ND	ND	ND	--	--	
	07/18/96	8.88	143.79	0.00	--	--	--	--	--	--	--	
	10/18/96	10.65	142.02	0.00	ND	ND	ND	ND	ND	--	--	
	01/23/97	7.83	144.84	0.00	--	--	--	--	--	--	--	
	04/24/97	8.10	144.57	0.00	ND	ND	ND	ND	ND	--	--	
	07/24/97	9.78	142.89	0.00	--	--	--	--	--	--	--	
	10/27-28/97	11.11	141.56	0.00	ND	ND	ND	ND	ND	--	--	
	01/21/98	5.12	147.55	0.00	--	--	--	--	--	--	--	
	04/15/98	7.08	145.59	0.00	ND	ND	ND	ND	ND	ND/ND <sup>6</sup>	--	
	07/15/98	7.85	144.82	0.00	--	--	--	--	--	--	--	
	10/15/98	9.98	142.69	0.00	ND	ND	ND	ND	0.548	ND/ND <sup>6</sup>	--	
	01/27/99	5.61	147.06	0.00	SAMPLED SEMI-ANNUALLY							
	04/22/99	7.21	145.46	0.00	ND	ND	ND	ND	ND	ND/ND <sup>6</sup>	--	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-9	07/22/99	9.58	143.09	0.00	--	--	--	--	--	--	--	
(Cont.)	10/20/99	9.85	142.82	0.00	ND	ND	ND	ND	ND	ND	--	
	01/05/00	11.10	141.57	0.00	--	--	--	--	--	--	--	
	04/06/00	7.35	145.32	0.00	ND	ND	ND	ND	ND	ND	--	
	07/21/00	10.20	142.47	0.00	--	--	--	--	--	--	--	
	10/30/00	11.73	140.94	0.00	ND	ND	ND	ND	ND	ND	--	
	01/24/01	10.30	142.37	0.00	--	--	--	--	--	--	--	
	04/25/01	8.27	144.40	0.00	ND	ND	ND	ND	0.598	ND	--	
	07/25/01	11.55	141.12	0.00	--	--	--	--	--	--	--	
	10/24/01	12.05	140.62	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	
	01/23/02	6.22	146.45	0.00	SAMPLED SEMI-ANNUALLY				--	--	--	
	04/24/02	8.26	144.41	0.00	<50	<0.50	1.1	<0.50	<0.50	<0.50	<2.5	
	07/24/02	9.74	142.93	0.00	--	--	--	--	--	--	--	
	10/18/02	11.77	140.90	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	
	02/03-04/03	8.26	144.41	0.00	SAMPLED SEMI-ANNUALLY				--	--	--	
	04/24/03	7.48	145.19	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.0/<2.0 <sup>6</sup>	--	
	07/30/03	INACCESSIBLE - PAVED OVER			--	--	--	--	--	--	--	
153.01	10/16/03	11.80	141.21	0.00	<50	<0.50	0.73	<0.50	1.2	<2.0/<2.0 <sup>6</sup>	--	
	01/07/04	7.22	145.79	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
155.46	05/11/04	9.00	146.46	0.00	<50	<0.50	0.60	<0.50	<1.0	<0.50	--	
	08/05/04	10.60	144.86	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
	11/02/04	11.10	144.36	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
	02/17/05	7.68	147.78	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	05/16/05	7.46	148.00	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	08/23/05	9.65	145.81	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	10/27/05	10.82	144.64	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-10	11/15/89	--	--	--	ND	ND	ND	ND	ND	--	--	
	03/26/90	--	--	--	ND	ND	ND	ND	ND	--	--	
	06/06/90	--	--	--	ND	ND	ND	ND	ND	--	--	
	09/27/90	--	--	--	ND	ND	ND	ND	ND	--	--	
	01/16/91	--	--	--	ND	ND	ND	ND	ND	--	--	
	04/30/91	--	--	--	ND	ND	ND	ND	ND	--	--	
	07/25/91	--	--	--	ND	ND	ND	ND	ND	--	--	
	10/25/91	--	--	--	ND	ND	ND	ND	ND	--	--	
	01/30/92	INACCESSIBLE	--	--	--	--	--	--	--	--	--	
	04/30/92	--	--	--	ND	ND	ND	ND	ND	--	--	
	07/22/92	--	--	--	ND	ND	ND	ND	ND	--	--	
	10/14/92	--	--	--	ND	ND	ND	ND	ND	--	--	
	01/13/93	--	--	--	ND	ND	ND	ND	ND	--	--	
152.71	04/12/93	7.22	145.49	0.00	ND	ND	ND	ND	ND	--	--	
	07/10/93	10.26	142.45	0.00	SAMPLED SEMI-ANNUALLY			--	--	--	--	
152.43	10/12/93	13.48	138.95	0.00	ND	ND	ND	ND	ND	--	--	
	01/10/94	9.98	142.45	0.00	--	--	--	--	--	--	--	
	04/20/94	8.48	143.95	0.00	ND	ND	ND	ND	ND	--	--	
	07/14/94	10.15	142.28	0.00	SAMPLED SEMI-ANNUALLY			--	--	--	--	
	10/18/94	12.50	139.93	0.00	ND	ND	ND	ND	ND	--	--	
	01/16/95	5.90	146.53	0.00	--	--	--	--	--	--	--	
	04/13/95	6.67	145.76	0.00	ND	ND	ND	ND	ND	--	--	
	07/20/95	8.70	143.73	0.00	--	--	--	--	--	--	--	
	10/17/95	10.88	141.55	0.00	ND	ND	ND	ND	ND	--	--	
	01/18/96	7.88	144.55	0.00	--	--	--	--	--	--	--	
	04/17/96	7.05	145.38	0.00	ND	ND	ND	ND	ND	--	--	
	07/18/96	8.67	143.76	0.00	--	--	--	--	--	--	--	
	10/18/96	10.41	142.02	0.00	ND	ND	ND	ND	ND	--	--	
	01/23/97	7.05	145.38	0.00	--	--	--	--	--	--	--	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-10	04/24/97	7.88	144.55	0.00	ND	ND	ND	ND	ND	--	--	
(Cont.)	07/24/97	9.56	142.87	0.00	--	--	--	--	--	--	--	
	10/27-28/97	10.88	141.55	0.00	ND	ND	ND	ND	ND	--	--	
	01/21/98	4.81	147.62	0.00	--	--	--	--	--	--	--	
	04/15/98	6.70	145.73	0.00	ND	ND	ND	ND	ND	ND/ND <sup>6</sup>	--	
	07/15/98	7.67	144.76	0.00	--	--	--	--	--	--	--	
	10/15/98	9.76	142.67	0.00	ND	ND	ND	ND	ND	ND/ND <sup>6</sup>	--	
	01/27/99	5.46	146.97	0.00	--	--	--	--	--	--	--	
	04/22/99	7.02	145.41	0.00	ND	ND	ND	ND	ND	ND/ND <sup>6</sup>	--	
	07/22/99	9.37	143.06	0.00	--	--	--	--	--	--	--	
	10/20/99	9.67	142.76	0.00	ND	ND	ND	ND	ND	ND	--	
	01/05/00	9.88	142.55	0.00	--	--	--	--	--	--	--	
	04/06/00	7.15	145.28	0.00	ND	ND	ND	ND	ND	ND	--	
	07/21/00	9.98	142.45	0.00	--	--	--	--	--	--	--	
	10/30/00	10.65	141.78	0.00	ND	ND	ND	ND	ND	ND	--	
	01/24/01	10.11	142.32	0.00	--	--	--	--	--	--	--	
	04/25/01	8.06	144.37	0.00	ND	ND	ND	ND	ND	ND	--	
	07/25/01	11.36	141.07	0.00	--	--	--	--	--	--	--	
	10/24/01	11.91	140.52	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	
	01/23/02	6.12	146.31	0.00	SAMPLED SEMI-ANNUALLY				--	--	--	
	04/24/02	8.06	144.37	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	
	07/24/02	9.97	142.46	0.00	--	--	--	--	--	--	--	
	10/18/02	11.50	140.93	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	
	02/03-04/03	8.11	144.32	0.00	SAMPLED SEMI-ANNUALLY				--	--	--	
	04/24/03	7.30	145.13	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.0/<2.0 <sup>6</sup>	--	
	07/30/03	INACCESSIBLE - PAVED OVER			--	--	--	--	--	--	--	
152.64	10/16/03	10.88	141.76	0.00	<50	<0.50	0.76	<0.50	1.2	<2.0/<2.0 <sup>6</sup>	--	
	01/07/04	6.95	145.69	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
155.03	05/11/04	8.60	146.43	0.00	<50	0.61	1.1	0.66	2.6	<0.50	--	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-10	08/05/04	10.19	144.84	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
(Cont.)	11/02/04	10.65	144.38	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
	02/17/05	8.02	147.01	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	05/16/05	7.09	147.94	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	08/23/05	9.26	145.77	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	<b>10/27/05</b>	<b>10.50</b>	<b>144.53</b>	<b>0.00</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50<sup>6</sup></b>	--	
<b>MW-11</b>	06/06/90	--	--	--	ND	ND	ND	ND	ND	--	--	
	09/27/90	--	--	--	ND	ND	ND	ND	ND	--	--	
	01/16/91	--	--	--	ND	ND	ND	ND	ND	--	0.13	
	04/30/91	--	--	--	ND	ND	ND	ND	ND	--	--	
	07/25/91	--	--	--	ND	0.39	ND	0.52	3.1	--	ND	
	10/25/91	--	--	--	ND	ND	ND	ND	ND	--	--	
	01/30/92	--	--	--	ND	ND	ND	ND	ND	--	ND	
	04/30/92	--	--	--	ND	ND	ND	ND	ND	--	--	
	07/22/92	--	--	--	ND	ND	ND	ND	ND	--	13	
	10/14/92	--	--	--	ND	ND	ND	ND	ND	--	--	
	01/13/93	--	--	--	ND	ND	ND	ND	ND	--	25	
151.99	04/12/93	5.98	146.01	0.00	ND	ND	ND	ND	ND	--	--	
	07/10/93	9.64	142.35	0.00	SAMPLED SEMI-ANNUALLY				--	--	--	
151.37	10/12/93	12.51	138.86	0.00	ND	ND	ND	ND	ND	--	0.49	
	01/10/94	10.11	141.26	0.00	--	--	--	--	--	--	--	
	04/20/94	8.67	142.70	0.00	ND	ND	ND	ND	ND	--	0.28	
	07/14/94	11.94	139.43	0.00	--	--	--	--	--	--	--	
	10/18/94	14.58	136.79	0.00	ND	ND	ND	ND	1.4	--	ND	
	01/16/95	3.80	147.57	0.00	--	--	--	--	--	--	--	
	04/13/95	4.23	147.14	0.00	ND	ND	ND	ND	ND	--	ND	
	07/20/95	8.72	142.65	0.00	--	--	--	--	--	--	--	
	10/17/95	12.77	138.60	0.00	ND	ND	ND	ND	ND	-- <sup>1</sup>	ND	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
MW-11	01/18/96	7.10	144.27	0.00	--	--	--	--	--	--	--	
(Cont.)	04/17/96	5.28	146.09	0.00	ND	ND	ND	ND	ND	--	0.47	
	07/18/96	8.95	142.42	0.00	--	--	--	--	--	--	--	
	10/18/96	12.37	139.00	0.00	ND	ND	ND	ND	ND	--	2.4	
	01/23/97	7.76	143.61	0.00	--	--	--	--	--	--	--	
	04/24/97	6.88	144.49	0.00	ND	ND	ND	ND	ND	--	ND	
	07/24/97	11.44	139.93	0.00	--	--	--	--	--	--	--	
	10/27-28/97	12.90	138.47	0.00	ND	ND	ND	ND	ND	--	ND	
	01/21/98	4.06	147.31	0.00	--	--	--	--	--	--	--	
	04/15/98	7.26	144.11	0.00	ND	ND	ND	ND	ND	ND/ND <sup>6</sup>	ND	
	07/15/98	7.06	144.31	0.00	SAMPLED SEMI-ANNUALLY							
	10/15/98 <sup>7</sup>	11.54	139.83	0.00	ND	ND	ND	ND	ND	ND/ND <sup>6</sup>	ND	
	01/27/99	6.87	144.50	0.00	--	--	--	--	--	--	--	
	04/22/99	5.13	146.24	0.00	ND	ND	ND	ND	ND	ND/ND <sup>6</sup>	ND	
	07/22/99	10.56	140.81	0.00	--	--	--	--	--	--	--	
	10/20/99	11.36	140.01	0.00	ND	ND	ND	ND	ND	ND	ND	
	01/05/00	11.60	139.77	0.00	--	--	--	--	--	--	--	
	04/06/00	5.93	145.44	0.00	ND	ND	ND	ND	ND	ND	ND	
	07/21/00	10.30	141.07	0.00	--	--	--	--	--	--	--	
	10/30/00	11.94	139.43	0.00	ND	ND	ND	ND	ND	ND	ND	
	01/24/01	10.42	140.95	0.00	--	--	--	--	--	--	--	
	04/25/01	8.29	143.08	0.00	ND	ND	ND	ND	ND	ND	ND	
	07/25/01	11.50	139.87	0.00	--	--	--	--	--	--	--	
151.37	10/24/01	13.70	137.67	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	<1.0	
	01/23/02	5.49	145.88	0.00	--	--	--	--	--	--	--	
	04/24/02	6.74	144.63	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	<0.200	
	07/24/02	11.07	140.30	0.00	--	--	--	--	--	--	--	
	10/18/02	13.24	138.13	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	<0.20 <sup>23</sup>	
	02/03-04/03	5.47	145.90	0.00	SAMPLED SEMI-ANNUALLY							

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg ( $\mu\text{g}/\text{L}$ )	B ( $\mu\text{g}/\text{L}$ )	T ( $\mu\text{g}/\text{L}$ )	E ( $\mu\text{g}/\text{L}$ )	X ( $\mu\text{g}/\text{L}$ )	MTBE ( $\mu\text{g}/\text{L}$ )	AS NO <sup>3</sup> ( $\mu\text{g}/\text{L}$ )	
MW-11	04/24/03	6.00	145.37	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.0/<2.0 <sup>6</sup>	--	
(Cont.)	07/30/03	9.67	141.70	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.0/<2.0 <sup>6</sup>	--	
	10/16/03	12.67	138.70	0.00	<50	<0.50	0.64	<0.50	0.97	<2.0/<2.0 <sup>6</sup>	--	
	01/07/04	5.43	145.94	0.00	930	2.8	<0.50	<0.50	1.9	<0.50	--	
154.86	05/11/04	7.30	147.56	0.00	210	5.0	7.1	5.3	18	<0.50	--	
	08/05/04	11.40	143.46	0.00	<50	0.78	<0.50	<0.50	<0.50	<0.50	--	
	11/03/04	11.89	142.97	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	
	02/17/05	6.48	148.38	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	05/16/05	5.43	149.43	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	08/23/05	9.96	144.90	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	<b>10/27/05</b>	<b>11.61</b>	<b>143.25</b>	<b>0.00</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50<sup>6</sup></b>	--	
<b>MW-12A</b>												
156.61	05/11/04	11.36	145.25	0.00	<50	2.4	3.1	1.3	5.2	<0.50	--	
	08/05/04	13.80	142.81	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
	11/02/04	14.28	142.33	0.00	<50	0.70	0.71	<0.50	<1.0	<0.50	--	
	02/17/05	10.16	146.45	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	05/16/05	9.01	147.60	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	08/23/05	12.45	144.16	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	<b>10/27/05</b>	<b>13.82</b>	<b>142.79</b>	<b>0.00</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50<sup>6</sup></b>	--	
<b>MW-12B</b>												
156.54	05/11/04	12.43	144.11	0.00	<50	0.77	1.2	<0.50	2.0	<0.50	--	
	08/05/04	14.91	141.63	0.00	<50	0.69	0.63	<0.50	<1.0	<0.50	--	
	11/02/04	15.29	141.25	0.00	<50	0.65	<0.50	<0.50	<1.0	<0.50	--	
	02/17/05	11.20	145.34	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	05/16/05	10.23	146.31	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	08/23/05	13.58	142.96	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	<b>10/27/05</b>	<b>14.87</b>	<b>141.67</b>	<b>0.00</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50<sup>6</sup></b>	--	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg ( $\mu\text{g}/\text{L}$ )	B ( $\mu\text{g}/\text{L}$ )	T ( $\mu\text{g}/\text{L}$ )	E ( $\mu\text{g}/\text{L}$ )	X ( $\mu\text{g}/\text{L}$ )	MTBE ( $\mu\text{g}/\text{L}$ )	AS NO <sup>3</sup> ( $\mu\text{g}/\text{L}$ )	
<b>MW-13A</b>												
155.48	05/11/04	10.70	144.78	0.00	<50	0.71	0.85	<0.50	1.9	<0.50	--	--
	08/05/04	13.11	142.37	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--
	11/02/04	13.48	142.00	0.00	<50	0.65	<0.50	<0.50	<1.0	<0.50	--	--
	02/17/05	9.46	146.02	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	--
	05/16/05	8.58	146.90	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	--
	08/23/05	11.76	143.72	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	--
	<b>10/27/05</b>	<b>13.08</b>	<b>142.40</b>	<b>0.00</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50<sup>6</sup></b>	--	--
<b>MW-13B</b>												
155.49	05/11/04	11.20	144.29	0.00	<50	1.1	2.9	1.5	6.1	<0.50	--	--
	08/05/04	13.61	141.88	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--
	11/02/04	13.92	141.57	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--
	02/17/05	9.97	145.52	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	--
	05/16/05	8.78	146.71	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	--
	08/23/05	15.90	139.59	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	--
	<b>10/27/05</b>	<b>13.54</b>	<b>141.95</b>	<b>0.00</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50<sup>6</sup></b>	--	--
<b>MW-14A</b>												
157.14	05/11/04	12.16	144.98	0.00	<50	0.98	1.7	1.3	5.1	10	--	--
	08/05/04	14.75	142.39	0.00	<50	<0.50	<0.50	<0.50	<1.0	21	--	--
	11/03/04	15.08	142.06	0.00	<50	<0.50	<0.50	<0.50	<1.0	22	--	--
	02/17/05	10.93	146.21	0.00	<50	<0.50	<0.50	<0.50	<1.0	32 <sup>6</sup>	--	--
	05/16/05	12.93	144.21	0.00	<50	<0.50	<0.50	<0.50	<1.0	16 <sup>6</sup>	--	--
	08/23/05	13.26	143.88	0.00	<50	<0.50	<0.50	<0.50	<1.0	20 <sup>6</sup>	--	--
	<b>10/27/05</b>	<b>14.60</b>	<b>142.54</b>	<b>0.00</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>28<sup>6</sup></b>	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg ( $\mu\text{g}/\text{L}$ )	B ( $\mu\text{g}/\text{L}$ )	T ( $\mu\text{g}/\text{L}$ )	E ( $\mu\text{g}/\text{L}$ )	X ( $\mu\text{g}/\text{L}$ )	MTBE ( $\mu\text{g}/\text{L}$ )	AS NO <sup>3</sup> ( $\mu\text{g}/\text{L}$ )	
<b>MW-14B</b>												
157.05	05/11/04	12.85	144.20	0.00	<50	0.81	0.90	0.55	2.1	<0.50	--	
	08/05/04	15.25	141.80	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
	11/03/04	15.62	141.43	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
	02/17/05	11.51	145.54	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	05/16/05	10.68	146.37	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	08/23/05	13.93	143.12	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	<b>10/27/05</b>	<b>15.16</b>	<b>141.89</b>	<b>0.00</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50<sup>6</sup></b>	--	
<b>MW-15</b>												
154.92	05/11/04	7.65	147.27	--	170	1.2	<0.50	<0.50	1.1	<0.50	--	
	08/05/04	11.55	143.37	--	<50	0.86	<0.50	<0.50	<1.0	<0.50	--	
	11/02/04	12.00	142.92	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	
	02/17/05	6.79	148.13	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	05/16/05	5.72	149.20	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	08/23/05	10.08	144.84	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50 <sup>6</sup>	--	
	<b>10/27/05</b>	<b>11.75</b>	<b>143.17</b>	<b>--</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50<sup>6</sup></b>	--	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	GWE (msl)	Product							NITRATES	
				Thickness (ft.)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	AS NO <sup>3</sup> (µg/L)	
<b>Trip Blank</b>												
TB-LB	01/21/98	--	--	--	ND	ND	ND	ND	ND	ND	ND	ND
	04/15/98	--	--	--	ND	ND	ND	ND	ND	ND	ND	--
	07/15/98	--	--	--	ND	ND	ND	ND	ND	ND	ND	--
	10/15/98	--	--	--	ND	ND	ND	ND	ND	ND	2.79	--
	01/27/99	--	--	--	ND	ND	ND	ND	ND	ND	ND	--
	04/22/99	--	--	--	ND	ND	ND	ND	ND	ND	ND	--
	07/22/99	--	--	--	ND	ND	ND	ND	ND	ND	ND	--
	10/20/99	--	--	--	ND	ND	ND	ND	ND	ND	ND	--
	01/05/00	--	--	--	ND	ND	ND	ND	ND	ND	5.68	--
	04/06/00	--	--	--	ND	ND	ND	ND	ND	ND	ND	--
	07/21/00	--	--	--	ND	ND	ND	ND	ND	ND	ND	--
	10/30/00	--	--	--	ND	ND	ND	ND	ND	ND	ND	--
	01/24/01	--	--	--	ND	ND	ND	ND	ND	ND	ND	--
	04/25/01	--	--	--	ND	ND	ND	ND	ND	ND	ND	--
	07/25/01	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	--
	10/24/01	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	--
	01/23/02 <sup>20</sup>	--	--	--	--	--	--	--	--	--	--	--
	01/26/02	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	--
	04/24/02	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	--
QA	07/24/02	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	--
	10/18/02	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	--
	02/03-04/03	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	--
	04/24/03	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	--
	07/30/03	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	--
	10/16/03	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	--
	01/07/04	--	--	--	NA	NA	NA	NA	NA	NA	NA	--
	08/05/04	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	--
	11/02/04	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<1.0	--	--
	02/17/05	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<1.0	--	--
	05/16/05	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<1.0	--	--
	08/23/05	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<1.0	--	--
	10/27/05	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<1.0	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

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**EXPLANATIONS:**

Groundwater monitoring data and laboratory analytical results prior to January 7, 2004, were compiled from reports prepared by Gettler-Ryan, Inc.

TOC	= Top of Casing	B	= Benzene	µg/L	= Micrograms per Liter
ft.	= Feet	T	= Toluene	QA	= Quality Assurance/Trip Blank
DTW	= Depth to Water	E	= Ethylbenzene	ND	= Not Detected
GWE	= Groundwater Elevation	X	= Xylenes	--	= Not Measured/Not Analyzed
msl	= Mean sea level		MTBE		= Methyl tertiary butyl ether
TPHg	= Total Petroleum Hydrocarbons as Gasoline				

- \* TOC elevations for MW-9 & MW-10 were performed on August 27, 2003, by Virgil Chavez Land Surveying, using the following City Benchmark: being a brass disk in a monument well on the centerline of Santa Rosa Avenue, 210 feet south of Flower Avenue, (Benchmark Elevation = 147.895 feet, NGVD 29). TOC elevations are relative to msl, per the City of Santa Rosa Benchmark C-175, (Elevation = 157.23 feet, msl). Prior to October 12, 1993, the DTW measurements were taken from top of well cover.
- \*\* GWE corrected due to the presence of free product; correction factor: [(TOC - DTW) + (Product Thickness x 0.75)].

- 1 Laboratory has potentially identified the presence of MTBE at reportable levels in the groundwater sample collected from this well.
- 2 Laboratory has identified the presence of MTBE at a level above or equal to the taste and odor threshold of 40 ppb in the sample collected from this well.
- 3 MTBE was ND. Detection limit was 1,000 ppb.
- 4 MTBE was ND. Detection limit was 500 ppb.
- 5 Detection limit raised. Refer to analytical reports.
- 6 MTBE by EPA Method 8260.
- 7 Nitrate/Nitrite was ND.
- 8 Skimmer present in well.
- 9 Laboratory indicates sample was re-run past hold time (May 10, 1999).
- 10 Laboratory report indicates gasoline and unidentified hydrocarbons <C6.
- 11 MTBE by EPA Method 8260 analyzed past hold time (August 11, 1999). Sample was originally analyzed within holding time on (August 5, 1999), however the quality control standard showed over-recovery. Sample contained a non-target compound which elutes in the same window as MTBE.
- 12 Laboratory report indicates gasoline C6-C12.
- 13 Skimmer not in well. Refer to field sheets.
- 14 Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons <C6.
- 15 Laboratory report indicates weathered gasoline C6-C12.
- 16 Laboratory report indicates gas range.
- 17 Laboratory report indicates gas pattern.

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

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**EXPLANATIONS:**

- 18 Laboratory report indicates early peaks.
- 19 Bailed 0.35 gallons of water + product.
- 20 Samples were misplaced at the laboratory; analysis was not performed.
- 21 Bailed 0.25 gallons of water + product.
- 22 Bailed 0.50 gallons of water + product.
- 23 Laboratory report indicates this sample was analyzed beyond the EPA recommended holding time.
- 24 Laboratory report indicates discrete peak @ MTBE.
- 25 Although sample contains compounds in the retention time range associated with gasoline, the chromatogram was not consistent with the expected chromatographic pattern or "fingerprint". However, the reported concentration is based on gasoline.
- 26 Weathered gasoline.

**ANALYTICAL METHODS:**

EPA Method 8260 for BTEX and Oxygenate Compounds

EPA Method 8015 for TPHg

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue, Santa Rosa, California

WELL ID	DATE	ETHANOL ( $\mu\text{g/L}$ )	TBA ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )	DIPE ( $\mu\text{g/L}$ )	ETBE ( $\mu\text{g/L}$ )	TAME ( $\mu\text{g/L}$ )	1,2-DCA ( $\mu\text{g/L}$ )
<b>MW-1</b>	04/15/98	ND	ND	45	ND	ND	ND	--
	07/15/98	ND	ND	13	ND	ND	ND	--
	10/15/98	ND <sup>1</sup>	ND <sup>1</sup>	14.8	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	--
	01/27/99	ND	ND	8.5	ND	ND	ND	--
	04/22/99	ND	ND	4.9	ND	ND	ND	--
	07/22/99 <sup>3</sup>	ND	ND	10	ND	ND	ND	--
	04/24/03	--	<100	70	<2.0	<2.0	<2.0	--
	07/30/03	--	<100	86	<2.0	<2.0	<2.0	<2.0
	10/16/03	--	<100	21	<2.0	<2.0	<2.0	<2.0
	01/08/04	--	<5.0	4.2	<0.50	<0.50	<0.50	<0.50
	05/11/04	--	30	1.2	<0.50	<0.50	<0.50	<0.50
	08/05/04	--	<5.0	4.7	<0.50	<0.50	<0.50	<0.50
	11/03/04	--	<5.0	5.5	<0.50	<0.50	15	<0.50
	02/17/05	--	<5.0	1.4	<0.50	<0.50	<0.50	<0.50
	05/16/05	--	<5.0	2.8	<0.50	<0.50	<0.50	<0.50
	08/23/05	--	<50	<5.0	<5.0	<5.0	<5.0	<5.0
<b>MW-2</b>	04/15/98	ND	ND	49	ND	ND	ND	--
	07/15/98	ND <sup>1</sup>	ND <sup>1</sup>	420	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	--
	10/15/98	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	--
	01/27/99	ND <sup>1</sup>	ND <sup>1</sup>	190	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	--
	04/22/99	ND <sup>1</sup>	ND <sup>1</sup>	270	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	--
	07/22/99 <sup>3</sup>	ND <sup>1</sup>	ND <sup>1</sup>	340	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	--
	04/24/03	--	<5,000	<100	<100	<100	<100	--
	07/30/03	--	<5,000	220	<100	<100	<100	<100
	10/16/03	--	<4,000	86	<80	<80	<80	<80
	01/08/04	--	<100	330	<10	<10	<10	<10
	05/11/04	--	1,500	280	<25	<25	<25	<25
	08/05/04	--	<5.0	15	<0.50	<0.50	<0.50	<0.50
	11/03/04	--	<50	360	<5.0	<5.0	28	<5.0
	02/17/05	--	<250	100	<25	<25	<25	<25
	05/16/05	--	<5.0	110	<0.50	<0.50	<0.50	<0.50
	08/23/05	--	<250	400	<25	<25	<25	<25
	<b>10/27/05</b>	--	<b>990</b>	<b>350</b>	<b>&lt;10</b>	<b>&lt;10</b>	<b>&lt;10</b>	<b>&lt;10</b>

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue, Santa Rosa, California

WELL ID	DATE	ETHANOL ( $\mu\text{g/L}$ )	TBA ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )	DIPE ( $\mu\text{g/L}$ )	ETBE ( $\mu\text{g/L}$ )	TAME ( $\mu\text{g/L}$ )	1,2-DCA ( $\mu\text{g/L}$ )
<b>MW-3</b>	04/15/98	ND	ND	ND	ND	ND	ND	--
	07/15/98	ND	ND	20	ND	ND	ND	--
	10/15/98	ND <sup>1</sup>	ND <sup>1</sup>	312	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	--
	01/27/99	ND	ND	19	ND	ND	ND	--
	04/22/99	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	--
	07/22/99 <sup>3</sup>	ND <sup>1</sup>	ND <sup>1</sup>	220	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	--
	04/24/03	--	<500	<10	<10	<10	<10	--
	07/30/03	--	<100	<2.0	<2.0	<2.0	<2.0	<2.0
	10/16/03	--	<100	<2.0	<2.0	<2.0	<2.0	<2.0
	01/08/04	--	<5.0	29	<0.50	<0.50	<0.50	3.0
	05/11/04	--	110	39	<0.50	<0.50	<0.50	<0.50
	08/05/04	--	<5.0	76	<0.50	<0.50	2.5	2.8
	11/03/04	--	<5.0	53	<0.50	<0.50	3.8	1.9
	02/17/05	--	<5.0	7.3	<0.50	<0.50	<0.50	<0.50
	05/16/05	--	<5.0	8.4	<0.50	<0.50	<0.50	1.7
	08/23/05	--	<5.0	48	<0.50	<0.50	1.8	2.5
	<b>10/27/05</b>	--	<b>64</b>	<b>56</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>
<b>MW-4</b>	04/15/98	ND	ND	36	ND	ND	ND	--
	07/15/98	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	--
	10/15/98	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	--
	01/27/99	ND <sup>1</sup>	ND <sup>1</sup>	57	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	--
	04/22/99	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	--
	07/22/99 <sup>3</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	--
	04/24/03	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	07/30/03	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	10/16/03	--	<10,000	<200	<200	<200	<200	<200
	01/07/04	--	<100	50	<10	<10	<10	<10
	05/11/04	--	2,600	12	<10	<10	<10	<10
	08/05/04	--	--	--	--	--	--	--
	11/02/04	--	--	--	--	--	--	--
	02/17/05	--	--	--	--	--	--	--
	05/16/05	--	<5.0	13	<0.50	<0.50	<0.50	<0.50
	08/23/05	--	<500	56	<50	<50	<50	<50
	<b>10/27/05</b>	--	<b>2,300</b>	<b>71</b>	<b>&lt;50</b>	<b>&lt;50</b>	<b>&lt;50</b>	<b>&lt;50</b>

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue, Santa Rosa, California

WELL ID	DATE	ETHANOL ( $\mu\text{g/L}$ )	TBA ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )	DIPE ( $\mu\text{g/L}$ )	ETBE ( $\mu\text{g/L}$ )	TAME ( $\mu\text{g/L}$ )	1,2-DCA ( $\mu\text{g/L}$ )
MW-5	04/15/98	ND	ND	ND	ND	ND	ND	--
	10/15/98	ND	ND	ND	ND	ND	ND	--
	04/22/99 <sup>2</sup>	ND	ND	ND	ND	ND	ND	--
	04/24/03	--	<100	<2.0	<2.0	<2.0	<2.0	--
	07/30/03	--	<100	<2.0	<2.0	<2.0	<2.0	<2.0
	10/16/03	--	<100	<2.0	<2.0	<2.0	<2.0	<2.0
	01/07/04	--	<5.0	0.80	<0.50	<0.50	<0.50	<0.50
	05/11/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	08/05/04	--	<5.0	0.79	<0.50	<0.50	<0.50	<0.50
	11/03/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	02/17/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	05/16/05	--	<5.0	0.82	<0.50	<0.50	<0.50	<0.50
	08/23/05	--	<5.0	0.71	<0.50	<0.50	<0.50	<0.50
	<b>10/27/05</b>	--	<b>&lt;5.0</b>	<b>0.64</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>
MW-6	04/15/98	ND	ND	ND	ND	ND	ND	--
	10/15/98	ND	ND	ND	ND	ND	ND	--
	04/22/99	ND	ND	ND	ND	ND	ND	--
	04/24/03	--	<100	<2.0	<2.0	<2.0	<2.0	--
	07/30/03	--	<100	<2.0	<2.0	<2.0	<2.0	<2.0
	10/16/03	--	<100	<2.0	<2.0	<2.0	<2.0	<2.0
	01/07/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	05/11/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	0.88
	08/05/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	11/03/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	02/17/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	05/16/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	08/23/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	<b>10/27/05</b>	--	<b>&lt;5.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue, Santa Rosa, California

WELL ID	DATE	ETHANOL ( $\mu\text{g/L}$ )	TBA ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )	DIPE ( $\mu\text{g/L}$ )	ETBE ( $\mu\text{g/L}$ )	TAME ( $\mu\text{g/L}$ )	1,2-DCA ( $\mu\text{g/L}$ )
MW-7	04/15/98	ND	ND	ND	ND	ND	ND	--
	10/15/98	ND	ND	ND	ND	ND	ND	--
	04/22/99	ND	ND	ND	ND	ND	ND	--
	04/24/03	--	<100	<2.0	<2.0	<2.0	<2.0	--
	07/30/03	--	<100	<2.0	<2.0	<2.0	<2.0	<2.0
	10/16/03	--	<100	<2.0	<2.0	<2.0	<2.0	<2.0
	01/07/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	05/11/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	08/05/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	11/03/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	02/17/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	05/16/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	08/23/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	10/27/05	--	<b>&lt;5.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>
MW-8	04/15/98	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	77	ND <sup>1</sup>	ND <sup>1</sup>	--
	07/15/98	ND	ND	ND	ND	ND	ND	--
	10/15/98	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	--
	01/27/99	ND	ND	ND	63	ND	ND	--
	04/22/99	ND <sup>1</sup>	ND <sup>1</sup>	71	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	--
	07/22/99 <sup>3</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	85	ND <sup>1</sup>	ND <sup>1</sup>	--
	04/24/03	--	<2,000	<40	<40	<40	<40	--
	07/30/03	--	<500	<10	18	<10	<10	<10
	10/16/03	--	<1,000	<20	23	<20	<20	<20
	01/07/04	--	<25	<2.5	43	<2.5	<2.5	3.6
	05/11/04	--	450	<2.5	<2.5	<2.5	<2.5	<2.5
	08/05/04	--	<5.0	<0.50	33	<0.50	<0.50	<0.50
	11/03/04	--	<5.0	<0.50	33	<0.50	<0.50	<0.50
	02/17/05	--	<50	<5.0	24	<5.0	<5.0	<5.0
	05/16/05	--	<100	<10	<10	<10	<10	<10
	08/23/05	--	<500	<50	<50	<50	<50	<50
	10/27/05	--	<b>460</b>	<b>&lt;5.0</b>	<b>33</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue, Santa Rosa, California

WELL ID	DATE	ETHANOL ( $\mu\text{g/L}$ )	TBA ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )	DIPE ( $\mu\text{g/L}$ )	ETBE ( $\mu\text{g/L}$ )	TAME ( $\mu\text{g/L}$ )	1,2-DCA ( $\mu\text{g/L}$ )
MW-9	04/15/98	ND	ND	ND	ND	ND	ND	--
	10/15/98	ND	ND	ND	ND	ND	ND	--
	04/22/99	ND	ND	ND	ND	ND	ND	--
	04/24/03	--	<100	<2.0	<2.0	<2.0	<2.0	--
	07/30/03	INACCESSIBLE - PAVED OVER		--	--	--	--	--
	10/16/03	--	<100	<2.0	<2.0	<2.0	<2.0	<2.0
	01/07/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	05/11/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	08/05/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	11/02/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	02/17/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	05/16/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	08/23/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	10/27/05	--	<b>&lt;5.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>
MW-10	04/15/98	ND	ND	ND	ND	ND	ND	--
	10/15/98	ND	ND	ND	ND	ND	ND	--
	04/22/99	ND	ND	ND	ND	ND	ND	--
	04/24/03	--	<100	<2.0	<2.0	<2.0	<2.0	--
	07/30/03	INACCESSIBLE - PAVED OVER		--	--	--	--	--
	10/16/03	--	<100	<2.0	<2.0	<2.0	<2.0	<2.0
	01/07/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	05/11/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	08/05/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	11/02/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	02/17/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	05/16/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	08/23/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	10/27/05	--	<b>&lt;5.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue, Santa Rosa, California

WELL ID	DATE	ETHANOL ( $\mu\text{g/L}$ )	TBA ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )	DIPE ( $\mu\text{g/L}$ )	ETBE ( $\mu\text{g/L}$ )	TAME ( $\mu\text{g/L}$ )	1,2-DCA ( $\mu\text{g/L}$ )
MW-11	04/15/98	ND	ND	ND	ND	ND	ND	--
	10/15/98	ND	ND	ND	ND	ND	ND	--
	04/22/99	ND	ND	ND	ND	ND	ND	--
	04/24/03	--	<100	<2.0	<2.0	<2.0	<2.0	--
	07/30/03	--	<100	<2.0	<2.0	<2.0	<2.0	<2.0
	10/16/03	--	<100	<2.0	<2.0	<2.0	<2.0	<2.0
	01/07/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	05/11/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	08/05/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	11/03/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	02/17/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	05/16/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	08/23/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	10/27/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
MW-12A	05/11/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	13
	08/05/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	19
	11/02/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	14
	02/17/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	21
	05/16/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	14
	08/23/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	23
	10/27/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	23
MW-12B	05/11/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	08/05/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	0.59
	11/02/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	02/17/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	05/16/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	08/23/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	10/27/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue, Santa Rosa, California

WELL ID	DATE	ETHANOL ( $\mu\text{g/L}$ )	TBA ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )	DIPE ( $\mu\text{g/L}$ )	ETBE ( $\mu\text{g/L}$ )	TAME ( $\mu\text{g/L}$ )	1,2-DCA ( $\mu\text{g/L}$ )
MW-13A	05/11/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	0.50
	08/05/04	--	<5.0	<0.50	0.70	<0.50	<0.50	0.61
	11/02/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	02/17/05	--	<5.0	<0.50	0.64	<0.50	<0.50	0.54
	05/16/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	08/23/05	--	<5.0	<0.50	1.0	<0.50	<0.50	0.64
	<b>10/27/05</b>	--	<b>&lt;5.0</b>	<b>&lt;0.50</b>	<b>1.5</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>
MW-13B	05/11/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	08/05/04	--	<5.0	<0.50	0.53	<0.50	<0.50	<0.50
	11/02/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	02/17/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	05/16/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	08/23/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	<b>10/27/05</b>	--	<b>&lt;5.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>
MW-14A	05/11/04	--	6.9	10	<0.50	<0.50	<0.50	4.2
	08/05/04	--	6.4	21	<0.50	<0.50	<0.50	9.4
	11/03/04	--	<5.0	22	<0.50	<0.50	<0.50	8.2
	02/17/05	--	<5.0	32	<0.50	<0.50	<0.50	14
	05/16/05	--	9.9	16	<0.50	<0.50	<0.50	7.2
	08/23/05	--	<5.0	20	<0.50	<0.50	<0.50	9.8
	<b>10/27/05</b>	--	<b>&lt;5.0</b>	<b>28</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>7.4</b>
MW-14B	05/11/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	08/05/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	11/03/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	02/17/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	05/16/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	08/23/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	<b>10/27/05</b>	--	<b>&lt;5.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue, Santa Rosa, California

WELL ID	DATE	ETHANOL ( $\mu\text{g/L}$ )	TBA ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )	DIPE ( $\mu\text{g/L}$ )	ETBE ( $\mu\text{g/L}$ )	TAME ( $\mu\text{g/L}$ )	1,2-DCA ( $\mu\text{g/L}$ )
MW-15	05/11/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	08/05/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	11/02/04	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	02/17/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	05/16/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	08/23/05	--	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
	<b>10/27/05</b>	--	--	--	--	--	--	<b>&lt;0.50</b>

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Former Unocal Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

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**EXPLANATIONS:**

TBA = Tertiary butyl alcohol  
MTBE = Methyl tertiary butyl ether  
DIPE = Di-isopropyl ether  
ETBE = Ethyl tertiary butyl ether  
TAME = Tertiary amyl methyl ether  
1,2 DCA = 1,2-Dichloroethane  
µg/L = Micrograms per Liter  
ND = Not Detected  
-- = Not Analyzed

**ANALYTICAL METHOD:**

EPA Method 8260 for Oxygenate Compounds

- 1 Detection limit raised. Refer to analytical reports.
- 2 Laboratory indicates sample was re-run past hold time (May 10, 1999).
- 3 MTBE by EPA Method 8260 analyzed past hold time (August 11, 1999). Sample was originally analyzed within holding time on (August 5, 1999), however the quality control standard showed over-recovery. Sample contained a non-target compound which elutes in the same window as MTBE.

**Table 3**  
**Groundwater Analytical Results - Dissolved Metals**  
Former Unocal Service Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID	DATE	U ( $\mu\text{g/L}$ )	Cr ( $\mu\text{g/L}$ )	Pb ( $\mu\text{g/L}$ )	Mo ( $\mu\text{g/L}$ )	Se ( $\mu\text{g/L}$ )	V ( $\mu\text{g/L}$ )
<b>MW-1</b>	04/24/03	0.77	0.093	<0.10	<0.040	<0.10	<0.040
	05/11/04	5.7	<1.0	<5.0	8.1	<5.0	3.2
	<b>05/16/05</b>	<b>4.6</b>	<b>&lt;1.0</b>	<b>&lt;5.0</b>	<b>8.6</b>	<b>&lt;5.0</b>	<b>5.7</b>
<b>MW-2</b>	04/24/03	0.29	<0.010	<0.10	<0.040	<0.10	<0.040
	05/11/04	4.9	<1.0	13	<2.0	<5.0	<3.0
	<b>05/16/05</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>5.0</b>	<b>3.6</b>	<b>&lt;5.0</b>	<b>&lt;3.0</b>
<b>MW-3</b>	04/24/03	0.21	0.041	<0.10	<0.040	<0.10	<0.040
	05/11/04	14	<1.0	<5.0	3.8	<5.0	<3.0
	<b>05/16/05</b>	<b>3.0</b>	<b>&lt;1.0</b>	<b>&lt;5.0</b>	<b>3.0</b>	<b>&lt;5.0</b>	<b>&lt;3.0</b>
<b>MW-4</b>	04/24/03	--	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--
	05/11/04	<1.0	<1.0	17	<2.0	<5.0	<3.0
	<b>05/16/05</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>7.9</b>	<b>2.6</b>	<b>&lt;5.0</b>	<b>&lt;3.0</b>
<b>MW-5</b>	04/24/03	13.4	<0.010	<0.10	<0.040	<0.10	<0.040
	05/11/04	18	<1.0	<5.0	<2.0	<5.0	3.4
	<b>05/16/05</b>	<b>24</b>	<b>&lt;1.0</b>	<b>&lt;5.0</b>	<b>2.2</b>	<b>&lt;5.0</b>	<b>4.5</b>
<b>MW-6</b>	04/24/03	0.63	0.015	<0.10	<0.040	<0.10	<0.040
	05/11/04	<1.0	<1.0	<5.0	<2.0	<5.0	4.0
	<b>05/16/05</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;5.0</b>	<b>&lt;2.0</b>	<b>&lt;5.0</b>	<b>5.4</b>
<b>MW-7</b>	04/24/03	0.21	0.026	<0.10	<0.040	<0.10	<0.040
	05/11/04	5.6	<1.0	<5.0	<2.0	<5.0	6.6
	<b>05/16/05</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;5.0</b>	<b>2.2</b>	<b>&lt;5.0</b>	<b>&lt;3.0</b>
<b>MW-8</b>	04/24/03	0.15	0.037	<0.10	<0.040	<0.10	<0.040
	05/11/04	5.6	<1.0	14	<2.0	<5.0	<3.0
	<b>05/16/05</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>8.4</b>	<b>&lt;2.0</b>	<b>&lt;5.0</b>	<b>&lt;3.0</b>

**EXPLANATIONS:**

Cr = Chromium  
 Mo = Molybdenum  
 Pb = Lead  
 Se = Selenium  
 V = Vanadium  
 U = Uranium  
 $\mu\text{g/L}$  = Micrograms per Liter  
-- = Not Analyzed

**ANALYTICAL METHODS:**

Dissolved Metals by EPA 200 Series  
 Uranium by EPA Method 908.0

**Table 4**  
**Groundwater Dissolved Oxygen Concentrations**  
Former Unocal Service Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID	DATE	Before Purging (mg/L)	After Purging (mg/L)
<b>MW-1</b>	10/20/99	3.9	--
	01/05/00	4.0	--
	04/06/00	3.5	--
	07/21/00	2.1	--
	10/30/00	3.1	--
	01/24/01	1.9	--
	04/25/01	3.6	--
	07/25/01	3.3	--
	10/24/01	4.5	--
	01/23/02	3.2	--
	04/24/02	3.2	--
	07/24/02	3.6	--
	10/18/02	1.4	--
	02/03-04/03	1.0	0.8
	04/24/03	0.4	--
	07/30/03	1.8	--
	10/16/03	1.9	--
	01/08/04	--	5.5
	05/12/04	7.1	1.1
	08/05/04	3.3	7.0
	11/03/04	3.3	1.7
	02/17/05	5.2	1.0
	05/16/05	2.7	3.7
	08/24/05	5.4	4.9
	<b>10/27/05</b>	<b>9.6</b>	<b>5.1</b>
<b>MW-2</b>	10/20/99 <sup>1</sup>	1.9	--
	01/05/00 <sup>1</sup>	2.2	--
	04/06/00 <sup>1</sup>	4.1	--
	07/21/00 <sup>1</sup>	1.9	--
	10/30/00 <sup>1</sup>	2.3	--
	01/24/01 <sup>1</sup>	3.0	--
	04/25/01 <sup>1</sup>	4.0	--
	07/25/01 <sup>1</sup>	6.4	--
	10/24/01 <sup>1</sup>	4.5	--
	01/23/02 <sup>1</sup>	4.9	--
	04/24/02 <sup>1</sup>	4.0	--
	07/24/02 <sup>1</sup>	3.1	--
	10/18/02	INACCESSIBLE - CAR PARKED OVER WELL	
	02/03-04/03 <sup>1</sup>	1.6	--
	04/24/03	0.8	--
	07/30/03 <sup>1</sup>	0.9	--
	10/16/03 <sup>1</sup>	0.6	--

**Table 4**  
**Groundwater Dissolved Oxygen Concentrations**  
Former Unocal Service Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID	DATE	Before Purging (mg/L)	After Purging (mg/L)
MW-2	01/08/04	--	3.9
(cont.)	05/12/04	4.0	1.0
	08/05/04	5.1	0.6
	11/03/04	2.6	0.9
	02/18/05	2.5	0.8
	05/16/05	4.2	3.9
	08/24/05	5.1	4.7
	<b>10/27/05</b>	<b>16.7</b>	<b>19.9</b>
<b>MW-3</b>	10/20/99	3.9	--
	01/05/00	3.4	--
	04/06/00	3.2	--
	07/21/00	2.0	--
	10/30/00	2.8	--
	01/24/01	2.0	--
	04/25/01	2.8	--
	07/25/01	2.4	--
	10/24/01	4.0	--
	01/23/02	2.8	--
	04/24/02	3.4	--
	07/24/02	3.3	--
	10/18/02	1.1	--
	02/03-04/03	0.1	--
	04/24/03	0.5	--
	07/30/03	1.1	--
	10/16/03	2.1	--
	01/08/04	--	6.1
	05/12/04	3.7	0.9
	08/05/04	2.4	0.7
	11/03/04	3.5	1.7
	02/17/05	4.3	1.3
	05/16/05	4.7	7.1
	08/24/05	5.7	4.4
	<b>10/27/05</b>	<b>7.0</b>	<b>4.1</b>
<b>MW-4</b>	10/20/99	1.9	--
	01/05/00 <sup>2</sup>	1.7	--
	04/06/00	4.2	--
	07/21/00	1.9	--
	10/30/00	1.7	--
	01/24/01	2.7	--
	04/25/01	3.7	--
	07/25/01	5.1	--

**Table 4**  
**Groundwater Dissolved Oxygen Concentrations**  
Former Unocal Service Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID	DATE	Before Purging (mg/L)	After Purging (mg/L)
MW-4	10/24/01	NOT MEASURED DUE TO FREE PRODUCT	
(cont)	01/23/02	NOT MEASURED DUE TO FREE PRODUCT	
	04/24/02	NOT MEASURED DUE TO FREE PRODUCT	
	07/24/02	NOT MEASURED DUE TO FREE PRODUCT	
	10/18/02	NOT MEASURED DUE TO FREE PRODUCT	
	02/03-04/03	NOT MEASURED DUE TO FREE PRODUCT	
	04/24/03	NOT MEASURED DUE TO FREE PRODUCT	
	07/30/03	NOT MEASURED DUE TO FREE PRODUCT	
	10/16/03	0.5	--
	01/07/04	--	5.4
	05/12/04	3.9	0.7
	08/05/04	NOT MEASURED DUE TO FREE PRODUCT	
	11/03/04	4.1	0.3
	02/18/05	NOT MEASURED DUE TO FREE PRODUCT	
	05/16/05	7.9	3.5
	08/24/05	4.6	3.3
	<b>10/27/05</b>	<b>18.7</b>	<b>7.3</b>
MW-5	10/20/99	4.7	--
	01/05/00	4.7	--
	04/06/00	4.3	--
	07/21/00	3.5	--
	10/30/00	4.0	--
	01/24/01	3.3	--
	04/25/01	4.6	--
	07/25/01	2.9	--
	10/24/01	5.5	--
	01/23/02	4.4	--
	04/24/02	3.5	--
	07/24/02	4.1	--
	10/18/02	INACCESSIBLE - CAR PARKED OVER WELL	
	02/03-04/03	--	--
	04/24/03	0.3	--
	07/30/03	3.5	--
	10/16/03	3.7	--
	01/08/04	--	5.3
	05/12/04	3.2	0.7
	08/05/04	4.7	0.7
	11/03/04	4.5	0.4
	02/17/05	5.5	1.1
	05/16/05	4.4	4.3
	08/24/05	5.6	5.1
	<b>10/27/05</b>	<b>4.8</b>	<b>4.7</b>

**Table 4**  
**Groundwater Dissolved Oxygen Concentrations**  
Former Unocal Service Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID	DATE	Before Purging (mg/L)	After Purging (mg/L)
<b>MW-6</b>	10/20/99	4.8	--
	01/05/00	5.0	--
	04/06/00	3.9	--
	07/21/00	2.0	--
	10/30/00	3.3	--
	01/24/01	2.0	--
	04/25/01	4.2	--
	07/25/01	3.2	--
	10/24/01	5.7	--
	01/23/02	4.9	--
	04/24/02	3.8	--
	07/24/02	3.8	--
	10/18/02	0.8	--
	02/03-04/03	--	--
	04/24/03	0.7	--
	07/30/03	3.0	--
	10/16/03	4.6	--
	01/07/04	--	5.1
	05/11/04	6.9	6.7
	08/05/04	2.0	6.8
	11/03/04	8.6	8.6
	02/17/05	2.7	1.0
	05/16/05	8.1	4.6
	08/24/05	3.3	3.5
	<b>10/27/05</b>	<b>4.5</b>	<b>3.6</b>
<b>MW-7</b>	10/20/99	5.1	--
	01/05/00	5.0	--
	04/06/00	3.8	--
	07/21/00	2.0	--
	10/30/00	3.7	--
	01/24/01	1.7	--
	04/25/01	3.9	--
	07/25/01	3.1	--
	10/24/01	5.4	--
	01/23/02	5.1	--
	04/24/02	4.2	--
	07/24/02	3.6	--
	10/18/02	1.1	--
	02/03-04/03	--	--
	04/24/03	0.4	--
	07/30/03	3.9	--
	10/16/03	3.6	--

**Table 4**  
**Groundwater Dissolved Oxygen Concentrations**  
Former Unocal Service Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID	DATE	Before Purging (mg/L)	After Purging (mg/L)
MW-7	01/07/04	--	4.8
(cont)	05/12/04	2.2	8.1
	08/05/04	4.1	5.6
	11/03/04	8.2	9.8
	02/17/05	4.0	1.5
	05/16/05	5.7	4.2
	08/23/05	4.4	0.9
	<b>10/27/05</b>	<b>12.2</b>	<b>3.3</b>
<b>MW-8</b>	10/20/99	1.7	--
	01/05/00 <sup>2</sup>	2.1	--
	04/06/00	4.3	--
	07/21/00	1.8	--
	10/30/00	2.3	--
	01/24/01	4.0	--
	04/25/01	4.4	--
	07/25/01	4.8	--
	10/24/01	4.3	--
	01/23/02	4.1	--
	04/24/02	3.8	--
	07/24/02	3.2	--
	10/18/02	1.2	--
	02/03-04/03	0.2	--
	04/24/03	0.5	--
	07/30/03	1.4	--
	10/16/03	0.9	--
	01/07/04	--	5.7
	05/12/04	6.0	3.0
	08/05/04	3.3	0.5
	11/03/04	3.9	0.9
	02/18/05	2.0	0.8
	05/16/05	5.2	4.2
	08/24/05	4.7	0.7
	<b>10/27/05</b>	<b>6.0</b>	<b>4.0</b>
<b>MW-9</b>	10/20/99	4.6	--
	01/05/00	4.7	--
	04/06/00	5.8	--
	07/21/00	4.4	--
	10/30/00	5.1	--
	01/24/01	4.0	--
	04/25/01	5.8	--
	07/25/01	4.7	--

**Table 4**  
**Groundwater Dissolved Oxygen Concentrations**  
Former Unocal Service Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID	DATE	Before Purging (mg/L)	After Purging (mg/L)
MW-9	10/24/01	6.5	--
(cont)	01/23/02	5.7	--
	04/24/02	4.1	--
	07/24/02	3.4	--
	10/18/02	0.2	--
	02/03-04/03	--	--
	04/24/03	0.2	--
	07/30/03	INACCESSIBLE - PAVED OVER	--
	10/16/03	4.2	--
	01/07/04	--	8.6
	05/11/04	6.5	3.3
	08/05/04	5.1	2.6
	11/03/04	5.4	1.7
	02/17/05	7.0	3.7
	05/16/05	9.3	7.0
	08/24/05	5.6	1.7
	<b>10/27/05</b>	<b>19.9</b>	<b>2.3</b>
 <b>MW-10</b>	 10/20/99	 4.3	 --
	01/05/00	4.8	--
	04/06/00	5.9	--
	07/21/00	4.6	--
	10/30/00	4.8	--
	01/24/01	4.2	--
	04/25/01	6.1	--
	07/25/01	5.1	--
	10/24/01	6.0	--
	01/23/02	5.5	--
	04/24/02	4.9	--
	07/24/02	3.2	--
	10/18/02	0.2	--
	02/03-04/03	--	--
	04/24/03	0.1	--
	07/30/03	INACCESSIBLE - PAVED OVER	--
	10/16/03	5.1	--
	01/07/04	--	7.6
	05/11/04	8.2	4.1
	08/05/04	5.0	2.9
	11/03/04	5.7	2.5
	02/17/05	6.0	4.2
	05/16/05	8.3	6.3
	08/24/05	6.1	2.7
	<b>10/27/05</b>	<b>6.9</b>	<b>4.1</b>

**Table 4**  
**Groundwater Dissolved Oxygen Concentrations**  
Former Unocal Service Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID	DATE	Before Purging (mg/L)	After Purging (mg/L)
<b>MW-11</b>	10/20/99	5.2	--
	01/05/00	4.8	--
	04/06/00	3.4	--
	07/21/00	2.2	--
	10/30/00	3.6	--
	01/24/01	1.9	--
	04/25/01	3.9	--
	07/25/01	2.9	--
	10/24/01	5.8	--
	01/23/02	4.8	--
	04/24/02	3.6	--
	07/24/02	4.8	--
	10/18/02	1.1	--
	02/03-04/03	--	--
	04/24/03	0.3	--
	07/30/03	3.5	--
	10/16/03	3.7	--
	01/07/04	--	6.5
	05/12/04	2.8	0.6
	08/05/04	1.2	7.4
	11/03/04	8.0	8.4
	02/17/05	3.7	1.3
	05/16/05	5.1	4.4
	08/24/05	4.4	1.8
	<b>10/27/05</b>	<b>9.4</b>	<b>3.1</b>
<b>MW-12A</b>	08/05/04	4.2	0.6
	11/03/04	7.9	0.8
	02/17/05	9.5	0.7
	05/16/05	8.6	4.1
	08/23/05	8.0	0.3
	<b>10/27/05</b>	<b>14.7</b>	<b>1.0</b>
<b>MW-12B</b>	08/05/04	3.6	0.6
	11/03/04	3.9	3.5
	02/17/05	4.6	0.9
	05/16/05	7.4	4.2
	08/23/05	6.9	0.6
	<b>10/27/05</b>	<b>12.7</b>	<b>1.3</b>

**Table 4**  
**Groundwater Dissolved Oxygen Concentrations**  
Former Unocal Service Station No. 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

WELL ID	DATE	Before Purging (mg/L)	After Purging (mg/L)
<b>MW-13A</b>	08/05/04	2.0	0.6
	11/03/04	4.2	0.4
	02/17/05	9.3	0.9
	05/16/05	6.0	2.0
	08/23/05	4.0	0.5
	<b>10/27/05</b>	<b>13.5</b>	<b>1.0</b>
<b>MW-13B</b>	08/05/04	5.2	9.5
	11/03/04	3.6	1.1
	02/17/05	5.0	0.7
	05/16/05	4.6	5.5
	08/23/05	6.0	2.5
	<b>10/27/05</b>	<b>19.4</b>	<b>1.7</b>
<b>MW-14A</b>	08/05/04	3.2	15.4
	11/03/04	7.2	9.1
	02/17/05	5.9	0.8
	05/16/05	5.2	9.3
	08/23/05	7.6	2.4
	<b>10/27/05</b>	<b>19.5</b>	<b>19.4</b>
<b>MW-14B</b>	08/05/04	4.4	1.3
	11/03/04	3.7	1.0
	02/17/05	5.5	1.1
	05/16/05	4.6	4.8
	08/23/05	5.8	0.9
	<b>10/27/05</b>	<b>19.9</b>	<b>13.2</b>
<b>MW-15</b>	08/05/04	1.9	11.9
	11/03/04	3.4	5.8
	02/17/05	4.8	1.0
	05/16/05	5.9	4.2
	08/23/05	4.5	1.0
	<b>10/27/05</b>	<b>3.9</b>	<b>3.8</b>

**EXPLANATIONS:**

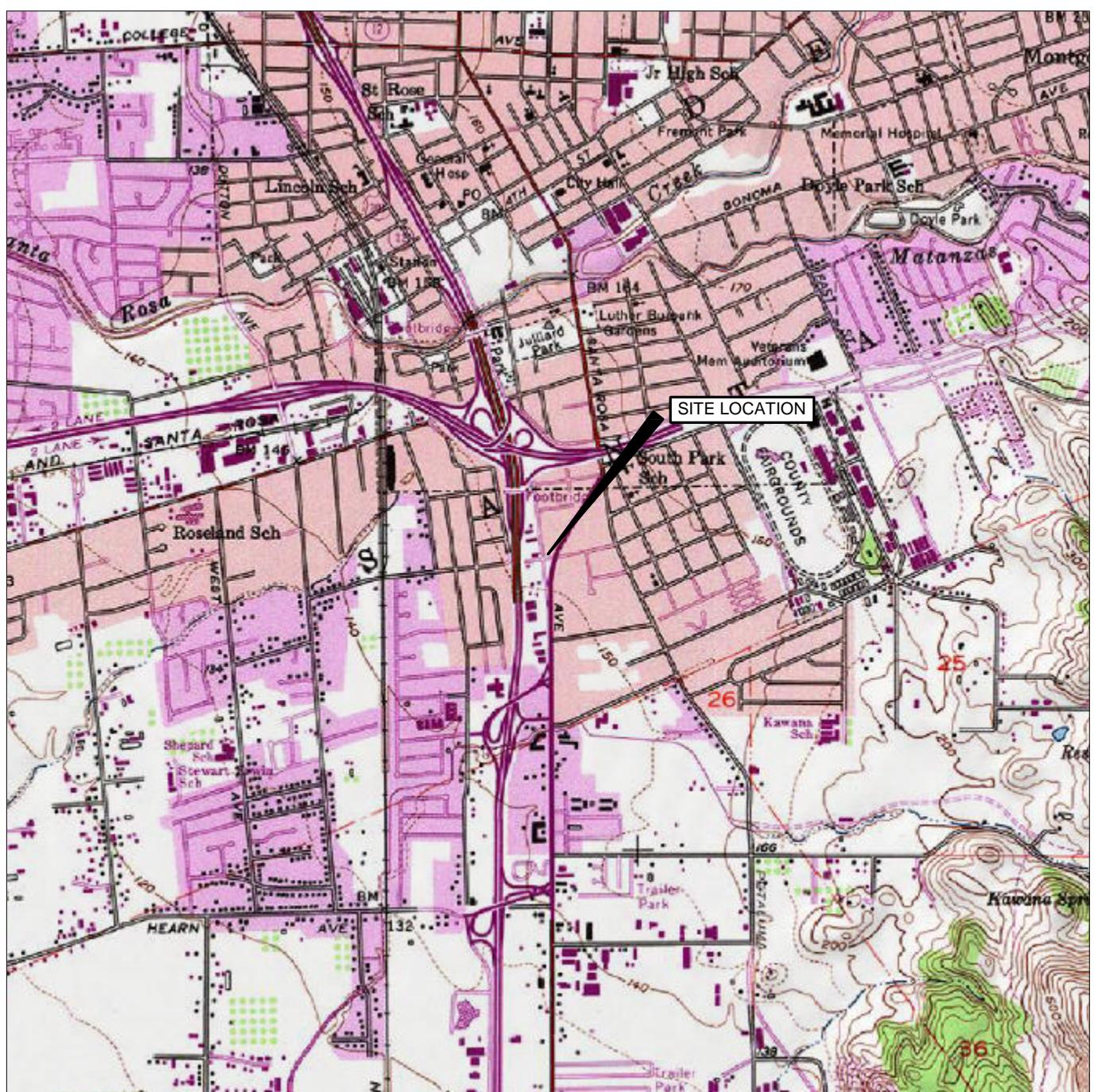
mg/L = Milligrams per liter

-- = Not Measured

- 1 Skimmer present in well.  
2 Skimmer not in well. Refer to field sheets.



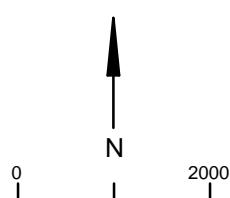
## FIGURES



Map created with TOPO - 2003 National Geographic



MAP LOCATION



Approximate Scale  
in Feet



10411 Old Placerville Road Ste 210  
Sacramento, California 95827  
Phone: (916) 362-7100  
Fax: (916) 362-8100  
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### SITE LOCATION MAP

Former UNOCAL Station 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

DRAWN BY

DATE

PROJECT NUMBER

G BORCHARDT

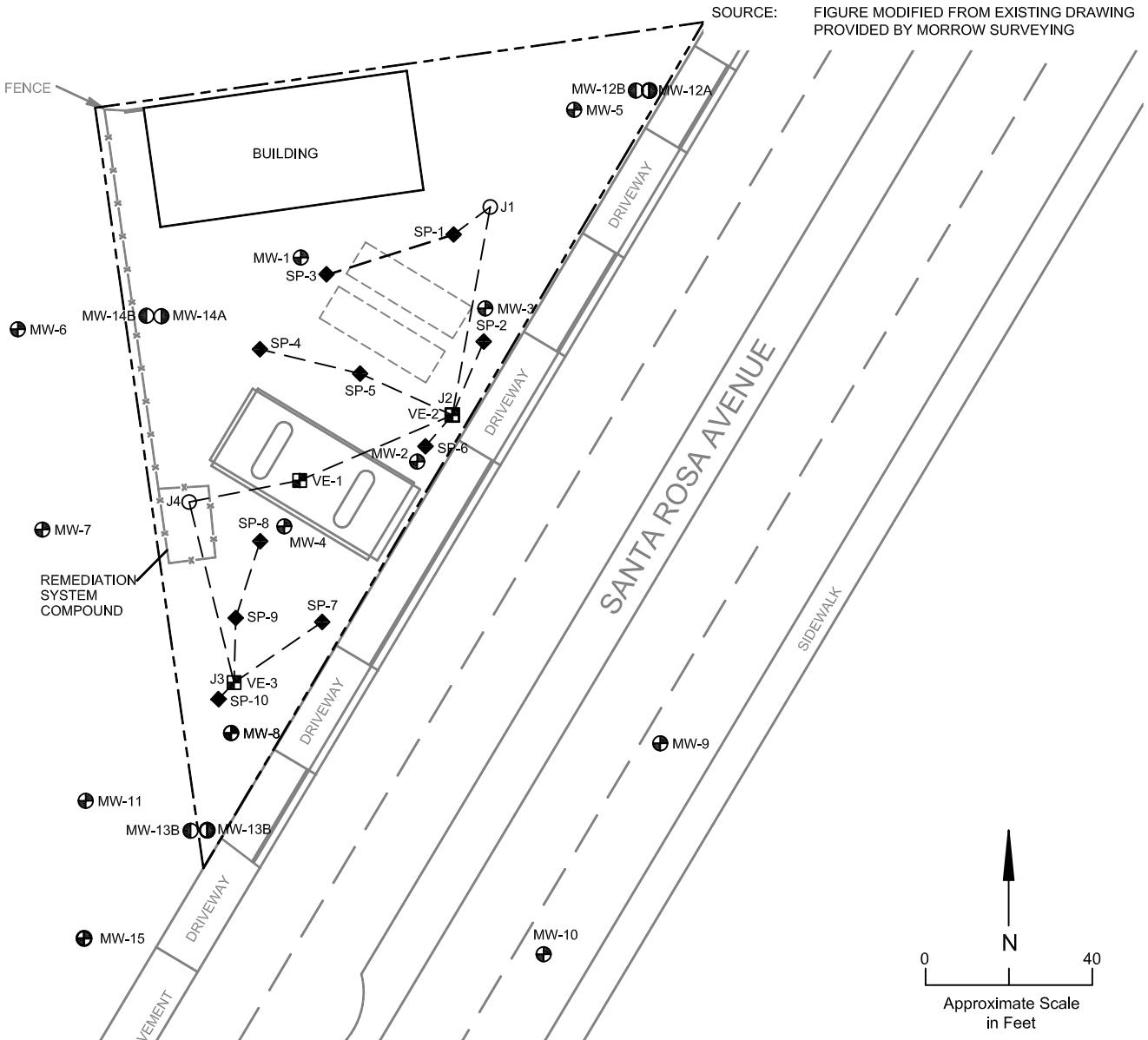
6/17/2004

06940-268

FIGURE

1

FRANCISCO'S AUTO SERVICE



LEGEND

- SHALLOW GROUNDWATER MONITORING WELL
- VAPOR EXTRACTION WELL
- ◆ OZONE SPARGE POINT
- INTERMEDIATE MONITORING WELL
- DEEP MONITORING WELL
- 2" BELOW GROUND CONDUIT SCHEDULE 40 PVC
- 6" BELOW GROUND CONDUIT SCHEDULE 40 PVC
- J4 ○ 36" JUNCTION BOX



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SITE MAP

Former UNOCAL Station 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

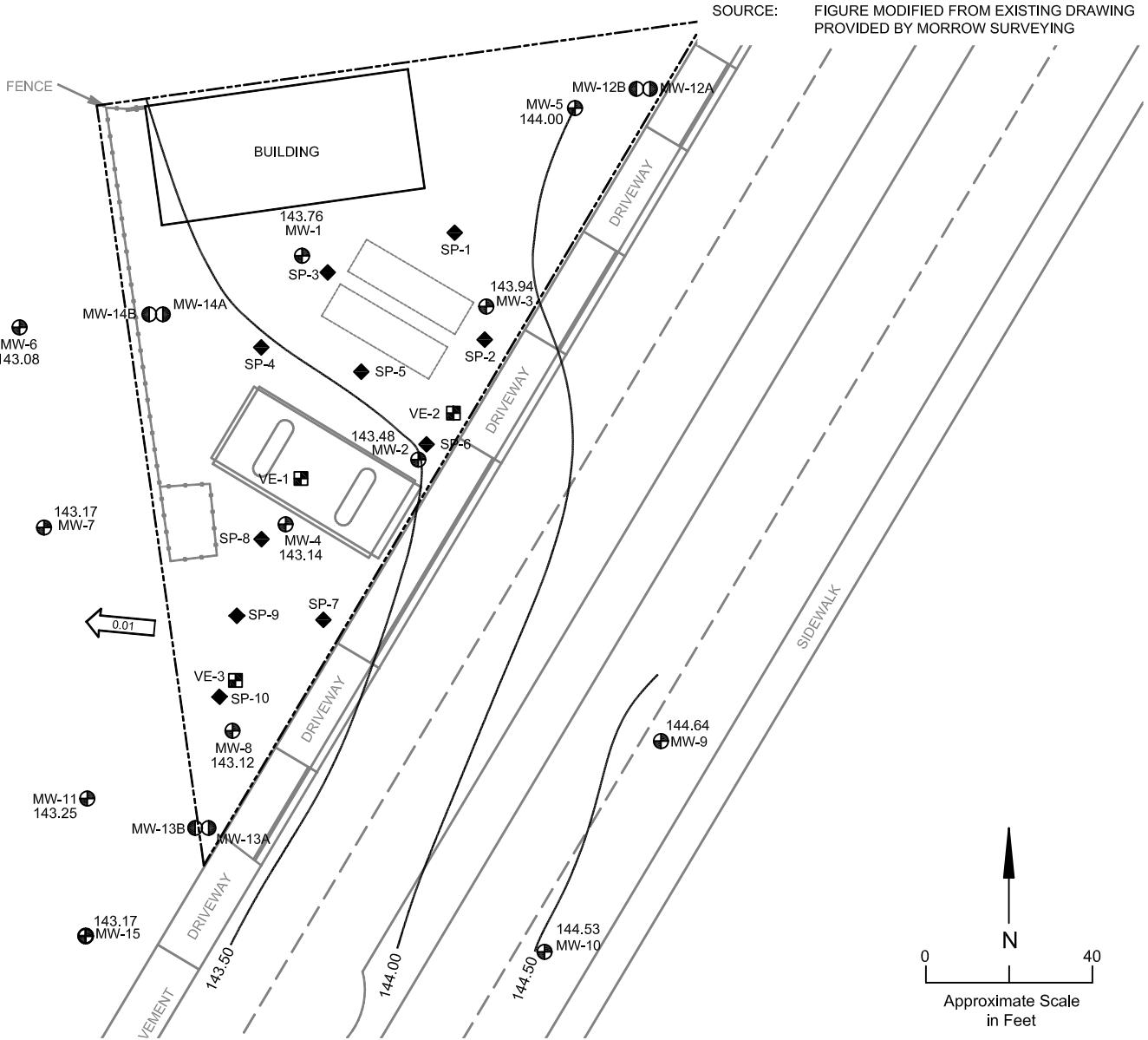
Quarterly Monitoring Report  
4th Quarter 2005

DRAWN BY	DATE	PROJECT NUMBER
E. Cowan	12/05/2005	06940-268-100

FIGURE

2

FRANCISCO'S AUTO SERVICE



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## GROUNDWATER ELEVATION CONTOUR MAP SHALLOW ZONE

Former UNOCAL Station 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

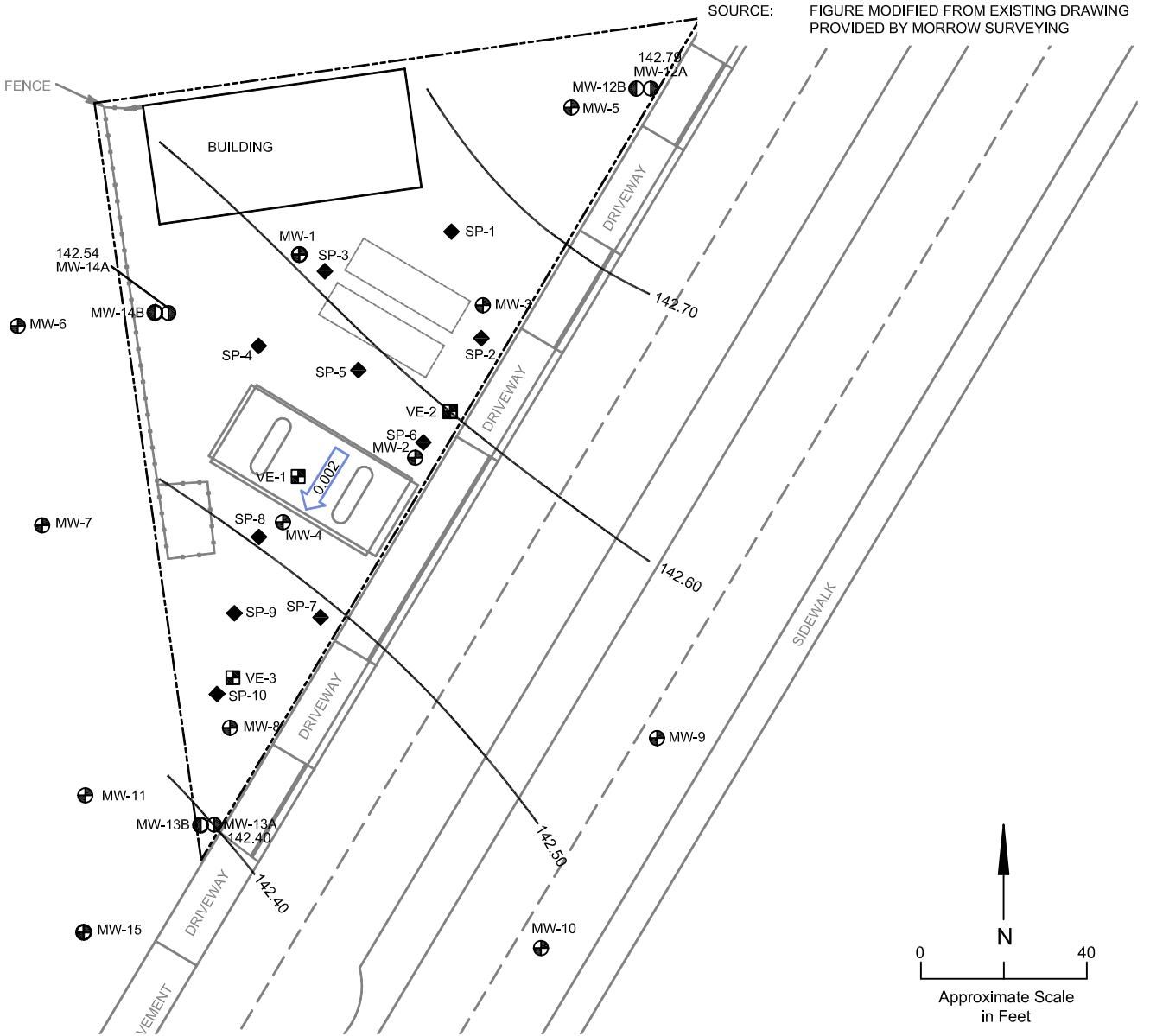
Quarterly Monitoring Report  
4th Quarter 2005  
October 27, 2005

DRAWN BY	DATE	PROJECT NUMBER
E. Cowan	12/05/2005	06940-268-100

FIGURE

3

FRANCISCO'S AUTO SERVICE



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## GROUNDWATER ELEVATION CONTOUR MAP INTERMEDIATE ZONE

Former UNOCAL Station 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

Quarterly Monitoring Report  
4th Quarter 2005  
October 27, 2005

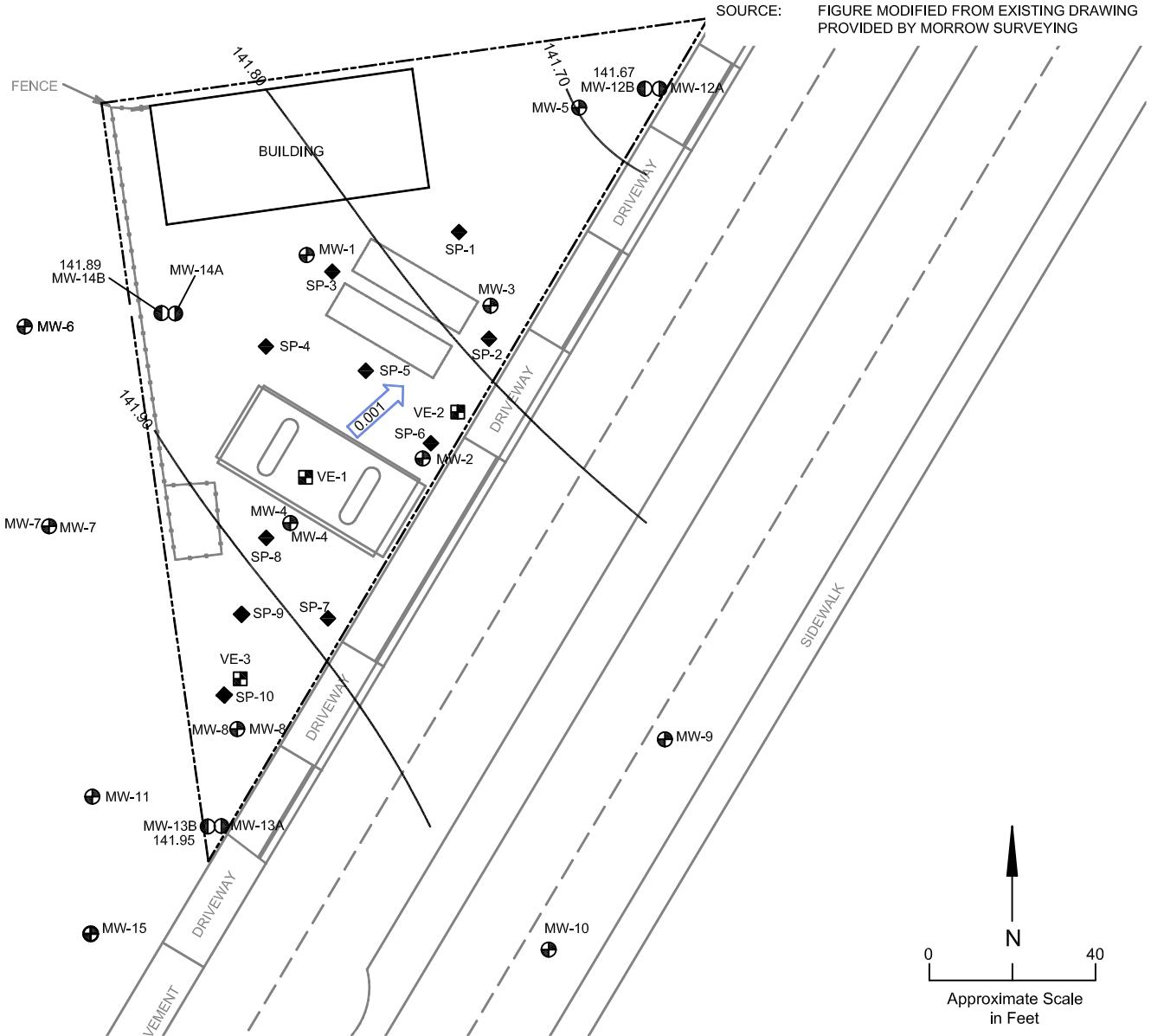
DRAWN BY	DATE	PROJECT NUMBER
E. Cowan	12/05/2005	06940-268-100

FIGURE

4

FRANCISCO'S AUTO SERVICE

SOURCE: FIGURE MODIFIED FROM EXISTING DRAWING PROVIDED BY MORROW SURVEYING



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## GROUNDWATER ELEVATION CONTOUR MAP DEEP ZONE

Former UNOCAL Station 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

Quarterly Monitoring Report  
4th Quarter 2005  
October 27, 2005

DRAWN BY	DATE	PROJECT NUMBER
E. Cowan	12/05/2005	06940-268-100

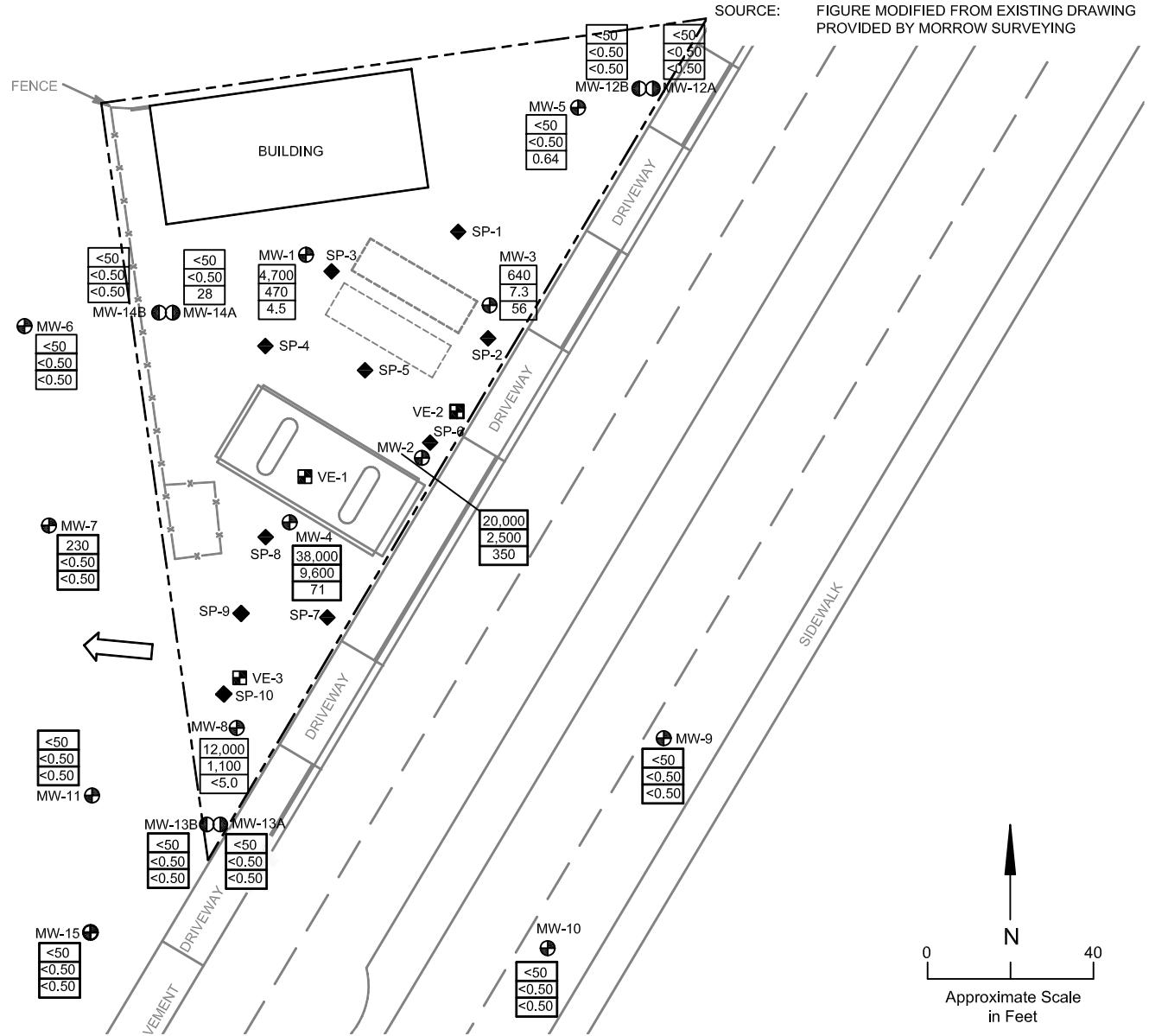
0  
N  
40  
Approximate Scale  
in Feet

FIGURE

5

FRANCISCO'S AUTO SERVICE

SOURCE: FIGURE MODIFIED FROM EXISTING DRAWING PROVIDED BY MORROW SURVEYING



LEGEND

- SHALLOW GROUNDWATER MONITORING WELL
- VAPOR EXTRACTION WELL
- OZONE SPARGE POINT
- INTERMEDIATE MONITORING WELL
- DEEP MONITORING WELL

20,000	TPHg
2,500	BENZENE
350	MTBE

ALL CONCENTRATIONS IN MICROGRAMS PER LITER  
APPROXIMATE GROUNDWATER FLOW DIRECTION IN SHALLOW ZONE



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PETROLEUM HYDROCARBON CONCENTRATION MAP

Former UNOCAL Station 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

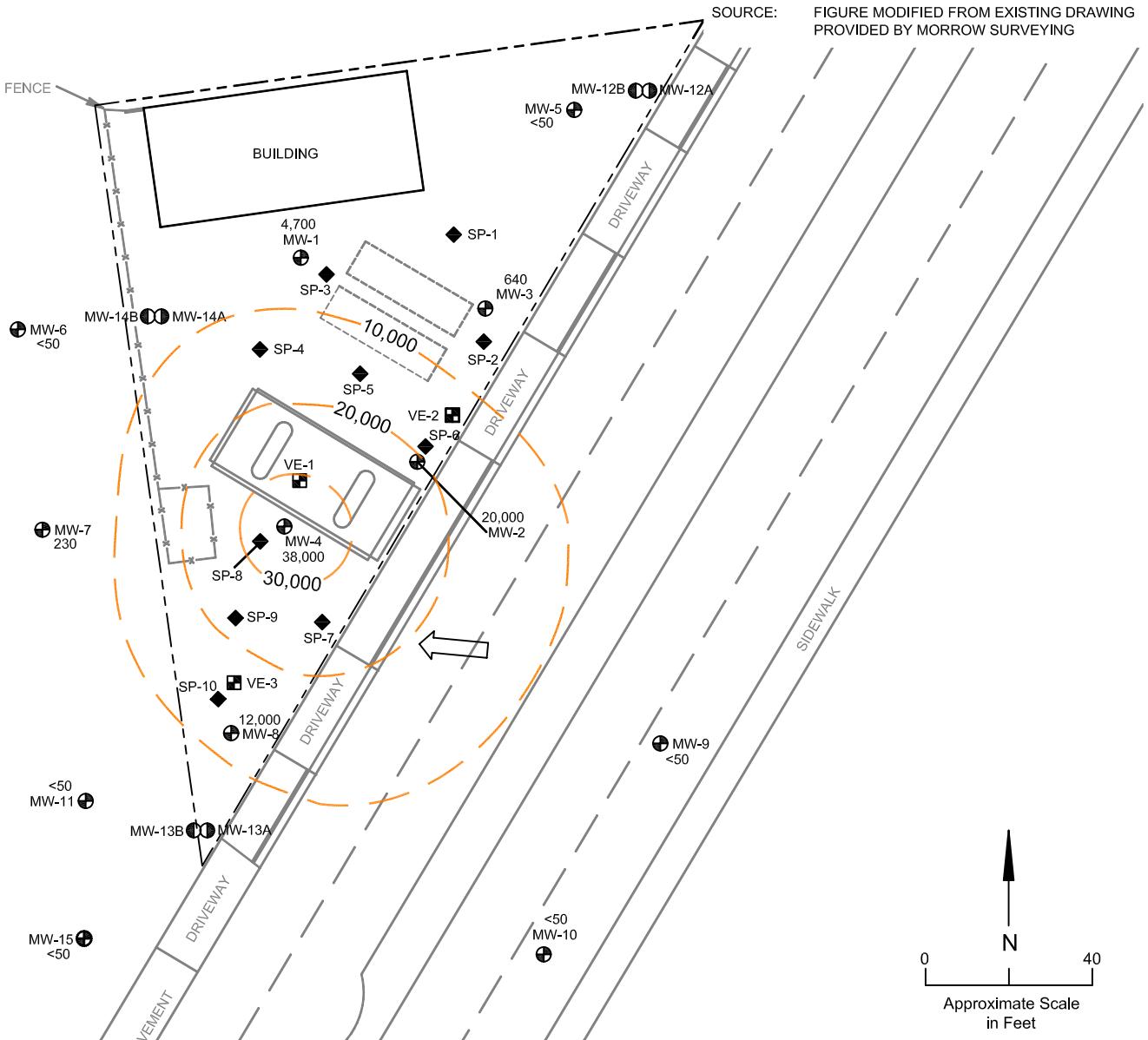
Quarterly Monitoring Report  
4th Quarter 2005  
October 27, 2005

DRAWN BY	DATE	PROJECT NUMBER
E. Cowan	12/05/2005	06940-268-100

FIGURE

6

FRANCISCO'S AUTO SERVICE



LEGEND

- SHALLOW GROUNDWATER MONITORING WELL
- VAPOR EXTRACTION WELL
- OZONE SPARGE POINT
- INTERMEDIATE MONITORING WELL
- DEEP MONITORING WELL

— 30,000 TPHg ISOCONCENTRATION

ALL CONCENTRATIONS IN MICROGRAMS PER LITER

◀ APPROXIMATE GROUNDWATER FLOW DIRECTION IN SHALLOW ZONE



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Fax: (916) 362-8100  
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DISSOLVED TPHg ISOCONCENTRATION MAP  
IN SHALLOW ZONE

Former UNOCAL Station 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

Quarterly Monitoring Report  
4th Quarter 2005  
October 27, 2005

DRAWN BY	DATE	PROJECT NUMBER
E. Cowan	12/05/2005	06940-268-100

FIGURE

7

FRANCISCO'S AUTO SERVICE

SOURCE: FIGURE MODIFIED FROM EXISTING DRAWING PROVIDED BY MORROW SURVEYING

BUILDING

FENCE

MONROE TIRE

LEGEND

- SHALLOW GROUNDWATER MONITORING WELL
  - VAPOR EXTRACTION WELL
  - ◆ OZONE SPARGE POINT
  - INTERMEDIATE MONITORING WELL
  - DEEP MONITORING WELL
- Benzene Isoconcentration



DISSOLVED BENZENE ISOCONCENTRATION MAP  
IN SHALLOW ZONE

10411 Old Placerville Road Ste 210  
Sacramento, California 95827  
Phone: (916) 362-7100  
Fax: (916) 362-8100  
Web: WWW.ENSRCOM

Former UNOCAL Station 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

Quarterly Monitoring Report  
4th Quarter 2005  
October 27, 2005

DRAWN BY

DATE

PROJECT NUMBER

E. Cowan

11/21/2005

06940-268-100

0  
40  
Approximate Scale  
in Feet

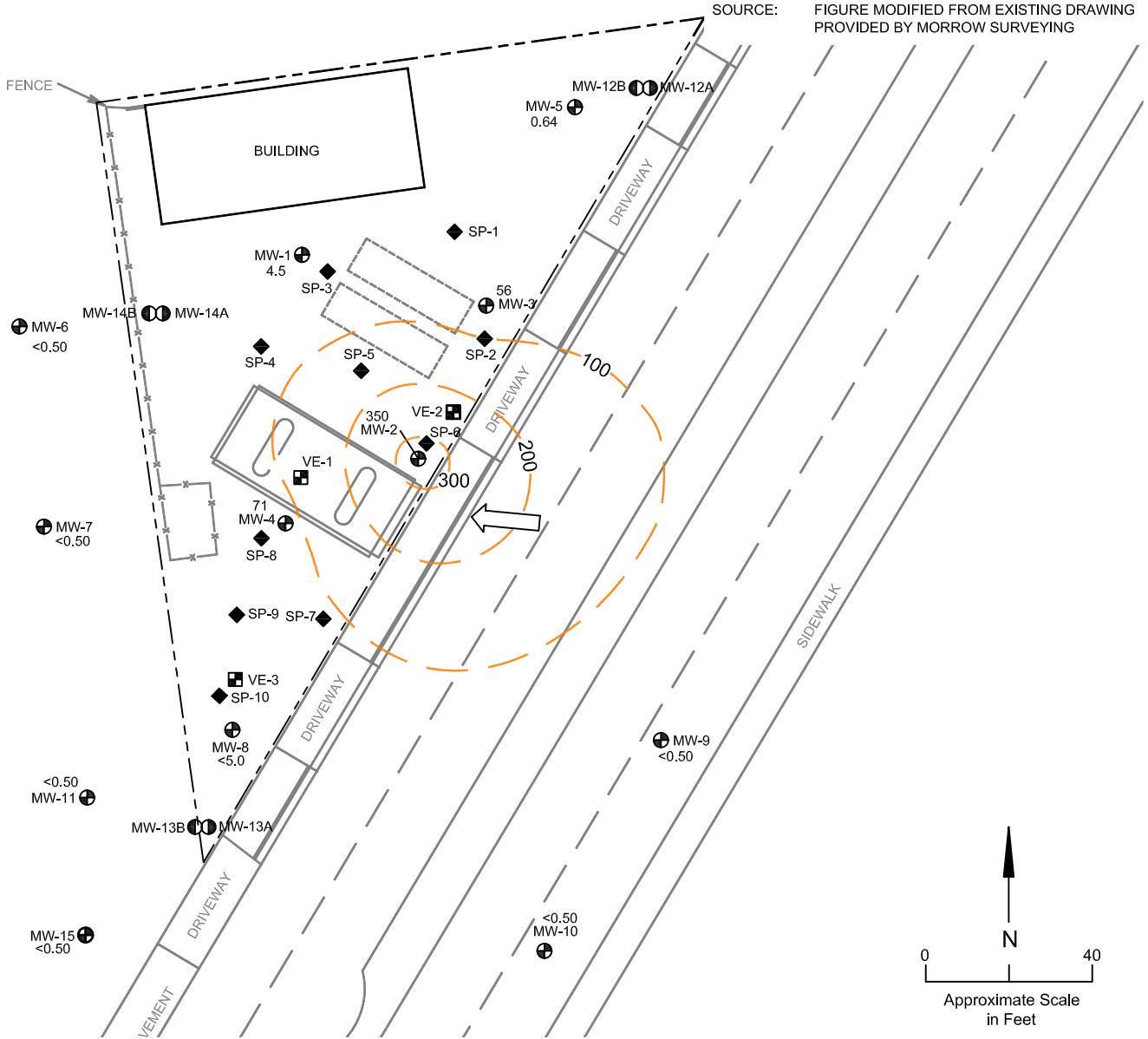
FIGURE

8

APPROXIMATE GROUNDWATER FLOW DIRECTION  
IN SHALLOW ZONE

FRANCISCO'S AUTO SERVICE

SOURCE: FIGURE MODIFIED FROM EXISTING DRAWING PROVIDED BY MORROW SURVEYING



LEGEND

- SHALLOW GROUNDWATER MONITORING WELL
  - VAPOR EXTRACTION WELL
  - OZONE SPARGE POINT
  - INTERMEDIATE MONITORING WELL
  - DEEP MONITORING WELL
  - MTBE ISOCONCENTRATION CONTOUR
- ALL CONCENTRATIONS IN MICROGRAMS PER LITER
- APPROXIMATE GROUNDWATER FLOW DIRECTION  
IN SHALLOW ZONE



10411 Old Placerville Road Ste 210  
Sacramento, California 95827  
Phone: (916) 362-7100  
Fax: (916) 362-8100  
Web: WWW.ENSER.COM

DISSOLVED MTBE ISOCONCENTRATION MAP  
IN SHALLOW ZONE

Former UNOCAL Station 2672  
1075 Santa Rosa Avenue  
Santa Rosa, California

Quarterly Monitoring Report  
4th Quarter 2005  
October 27, 2005

DRAWN BY	DATE	PROJECT NUMBER
E. Cowan	12/05/2005	06940-268-100

FIGURE

9



**ATTACHMENT A**

**FIELD METHODS AND PROCEDURES**



## **FIELD METHODS AND PROCEDURES**

The following section describes field procedures that are to be used by ENSR personnel in the performance of the tasks involved with this project.

### **1. HEALTH AND SAFETY PLAN**

Fieldwork performed by ENSR and ENSR's subcontractors at the site will be conducted according to guidelines established in a Health and Safety Plan (HASP). The HASP is a document that describes the hazards that may be encountered in the field and specifies protective equipment, work procedures and emergency information. A copy of the HASP will be at the site and available for reference by appropriate parties during work at the site.

### **2. GROUNDWATER DEPTH ASSESSMENT**

A water/product interface probe is used to assess the liquid-phase hydrocarbons (LPH) thickness, if present, and a water level indicator is used to measure the groundwater depth in monitoring wells that do not contain LPH. Depth to groundwater or LPH is measured from a datum point at the top of each monitoring well casing. The datum point is typically a notch cut in the north side of the casing edge. If a water level indicator is used, the tip is subjectively analyzed for LPH sheen.

### **3. SUBJECTIVE ANALYSIS OF GROUNDWATER**

Prior to purging, a water sample is collected from the monitoring well for subjective assessment. The sample is retrieved by gently lowering a clean, disposable bailer to approximately one-half the bailer length past the air/liquid interface. The bailer is then retrieved and the sample contained within the bailer is examined for floating LPH and the appearance of a LPH sheen.

### **4. MONITORING WELL SAMPLING**

Monitoring wells are purged using a pump or bailer until pH, temperature and conductivity of the purge water has stabilized and a minimum of three well volumes of water has been removed. The purge water is placed in 55-gallon drums and temporarily stored on-site pending evaluation of disposal options. If three well volumes cannot be removed in one-half an hour's time, the well is allowed to recharge to 80 percent of original level. After recharging, a groundwater sample is then removed from each of the wells using a pump or disposable bailer. The water sample is collected, labeled and handled according to the Quality Assurance Plan. Water generated during the monitoring event is disposed of according to the accepted regulatory method pertaining to the site.

### **5. QUALITY ASSURANCE PLAN**

This section describes the field and analytical procedures to be followed by ENSR throughout the investigation.

#### **5.1 General Sample Collection and Handling Procedures**

Proper collection and handling are essential to ensure the quality of a sample. Each sample will be collected in the appropriate container, preserved correctly for the intended analysis and



stored, prior to analysis, for no longer than the maximum allowable holding time. Details on the procedures for collection and handling of soil samples from this project can be found in previous sections.

## **5.2 Sample Identification and Chain-of-Custody Procedures**

Sample identification and chain-of-custody procedures ensure sample integrity and document sample possession from the time of collection to its ultimate disposal. Each sample container submitted for analysis will have a label affixed to identify the job number, sampler, date and time of sample collection and a sample number unique to that sample. During soil sampling, this information, in addition to a description of the sample, field measurements made, sampling methodology, names of on-site personnel and any other pertinent field observations will be recorded on the borehole log or in the field records.



**ATTACHMENT B**

**GROUNDWATER SAMPLING DATA SHEETS**



GROUNDWATER/LIQUID LEVEL DATA  
(measurements in feet below TOC)

Site: 1075 Santa Rosa Avenue, Santa Rosa  
ENSR No. 06940-268-100  
Unocal No. 2672

Date: 10/27/05  
Recorded by: Troy Venham / Heather Tausch

SAMPLING ORDER / WELL NO	TIME OPENED	CGI	PID	O2	TIME MEASURED	DEPTH TO GR. WATER	MEASURED TOTAL DEPTH	DEPTH TO PRODUCT	PRODUCT THICKNESS	COMMENTS (TOC/TOB) (PRODUCT SKIMMER IN WELL)
MW-9	09:07	N/A	N/A	N/A	09:13	10.82	24.24	N/A	N/A	
MW-10					09:30	10.50	24.25			
MW-12A					09:52	13.82	54.80			
MW-12B					09:54	14.87	84.79			
MW-13A					09:56	13.08	54.71			
MW-13B					09:57	13.54	84.44			
MW-15					09:59	11.75	19.94			
MW-14A					10:01	14.60	54.99			
MW-14B					10:02	15.16	84.98			
MW-7					10:03	12.61	23.30			
MW-6					10:04	13.10	22.90			
MW-11					10:05	11.61	23.05			
MW-5					10:06	12.54	29.80			
MW-3					10:07	12.43	33.45			
MW-1					10:08	13.25	34.10			
MW-8		/	/	/	10:09	12.50	26.70	/	/	
MW-2		/	/	/	10:10	12.70	34.15	/	/	
MW-4		/	/	/	10:17	12.50	29.50	N/A	N/A	DO NOT SAMPLE IF FP PRESENT ↗

Notes:

2 pig socks weighing 1.5 lbs.  
replaced w/ 2 pig socks weighing  
4 oz total.

ENSR.

## GROUNDWATER SAMPLING DATA SHEET

Site Address: 1075 Santa Rosa Avenue, Santa Rosa  
 ENSR No. 06940-268-100  
 Unocal No. 2672

Well/Piezo ID: MW-1

Well  Piezometer 

Well Purging:

Date Purged: 10-27-05

Purge Method: Disposable bailer/other Grounds pump

Field Tech(s): Tracy Wernham

Weather Conditions: Sunny (56°F)

Casing Material: PVC

Well Diameter: 2.00 in.

Total Depth: 34.10 ft from TOC

Depth to Water: 13.25 ft from TOC

Water Column: 20.85 ft.

Water Column Volume: 3.33 gal (WC X VF)

Volume	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
Factor (VF)	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 17.42

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
13:34	0.5	1.6	-115	21.8	14	7.7	-5.0	gray/cloudy	none	
13:36	1.40	5.7	-158	20.5	15	7.7	-5.0	iv " "	dispersing	
13:38	2.80	5.5	-144	20.6	17	7.4	7.76	clear	edge present	
13:40	3.12.0	5.1	-132	20.7	19	7.1	449	clear	edge present	
	4									

Sample Collection:

Date Sampled: 10-27-05

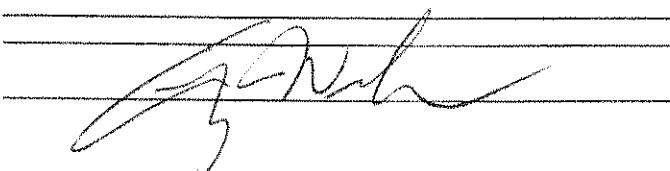
Sampling Method: Disposable Bailer/Other

Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-1	3	40 mL glass vial	Ice/HCl	TPHg (8015), BTEX (8260), 5-Oxys (8260), 1,2-DCA (8260)	13:50
APRIL ONLY	1	1-Liter Poly	Ice	(APRIL ONLY) Dissolved metals(Chromium, Vanadium, Selenium, Lead, Molybdenum)	
APRIL ONLY	1	1-Liter Poly	Ice	(APRIL ONLY) Dissolved metal (Uranium)	
				*NOTE* Sample for Dissolved Metals Annually (April Only)	

Comments:

Signature:



Date: 10-27-05

ENSR.

## GROUNDWATER SAMPLING DATA SHEET

Site Address: 1075 Santa Rosa Avenue, Santa Rosa  
 ENSR No. 06940-268-100  
 Unocal No. 2672

Well/Piezo ID: MW-2

Well  Piezometer 

Well Purging:

Date Purged: 10/27/05

Purge Method: Disposable bailer/other groundfcs

Casing Material: PVC

Well Diameter: 2.00 in.

Total Depth: 34.15 ft from TOC

Depth to Water: 12.70 ft from TOC

Water Column: 21.45 ft.

Water Column Volume: 3.43 gal (WC X VF)

Field Tech(s): Heather Tusser

Weather Conditions: Warm, 70° S

Volume	3/4" = 0.02	1" = 0.04	2" = .10	3" = .38
Factor (VF)	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 14.99

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity ( $\mu\text{S/cm}$ )	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
14:17	0 0.5	16.7	-4	21.3	0.21	6.50	-5	v. cloudy	no odor	
14:19	1 3.93	10.3	-37	21.1	0.23	6.50	-5	v. cloudy	no odor	
14:21	2 6.93	19.9	-70	21.0	0.26	6.38	-5	v. cloudy	no odor	
14:23	3 9.93	19.9	-85	21.1	0.24	6.43	-5	v. cloudy	no odor	
	4									

Sample Collection:

Date Sampled: 10/27/05

Sampling Method: Disposable Bailer/Other bailed

Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-2	3	40 mL glass vial	Ice/HCl	TPHg (8015), BTEX (8260), 5-Oxys (8260), 1,2-DCA (8260)	14:34
APRIL ONLY	1	1-Liter Poly	Ice	(APRIL ONLY) Dissolved metals (Chromium, Vanadium, Selenium, Lead, Molybdenum)	
APRIL ONLY	1	1-Liter Poly	Ice	(APRIL ONLY) Dissolved metal (Uranium)	
				*NOTE* Sample for Dissolved Metals Annually (April Only)	

Comments: replaced cap &amp; top L

Signature: Heather Tusser

Date 10/27/05

ENSR.

## GROUNDWATER SAMPLING DATA SHEET

Site Address: 1075 Santa Rosa Avenue, Santa Rosa  
 ENSR No. 06940-268-100  
 Unocal No. 2672

Well/Piezo ID: MW-3

Well  Piezometer 

Well Purging:

Date Purged: 10-27-05

Purge Method: Disposable bailer/other

PVC

Casing Material:

Well Diameter: 2.00 in.

Total Depth: 33.45 ft from TOC

Depth to Water: 12.43 ft from TOC

Water Column: 21.02 ft.

Water Column Volume: 3.34 gal (WC X VF)

Field Tech(s): Troy Lekawhan

Weather Conditions: Sunny (55°F)

Volume	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
Factor (VF)	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 14.64

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (μS/cm)	pH	Turbidity (NTUs)	Color/Clarity	Other odor	Other
13:04	0 0.5	7.0	-134	22.1	181	8.3	774	Clear	none	
13:06	1 4.0	4.7	-116	21.0	21	8.1	50	gray/brown	"	
13:08	2 8.0	4.7	-114	21.2	20	8.1	50	gray/brown	odor present	
13:10	3 12.0	4.1	-114	22.1	20	8.0	50	gray/brown	odor present	
	4									

Sample Collection:

Date Sampled: 10-27-05

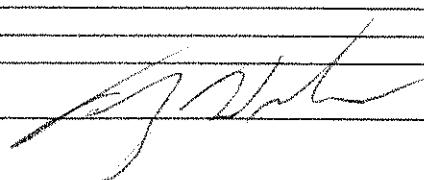
Sampling Method: Disposable Bailor/Other

Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-3	3	40 mL glass vial	Ice/HCl	TPHg (8015), BTEX (8260), 5-Oxys (8260), 1,2-DCA (8260)	13:20
APRIL ONLY	1	1-Liter Poly	Ice	(APRIL ONLY) Dissolved metals(Chromium, Vanadium, Selenium, Lead, Molybdenum)	
APRIL ONLY	1	1-Liter Poly	Ice	(APRIL ONLY) Dissolved metal (Uranium)	
				*NOTE* Sample for Dissolved Metals Annually (April Only)	

Comments:

Signature:

Signature: 

Date: 10-27-05

## GROUNDWATER SAMPLING DATA SHEET

Site Address: 1075 Santa Rosa Avenue, Santa Rosa  
 ENSR No. 06940-268-100  
 Unocal No. 2672

Well/Piezo ID: MW-4

Well  Piezometer 

## Well Purging:

Date Purged: 10/27/05

Purge Method: Disposable bailer/other groundfoss

Casing Material:

PVC

2.00 in

Total Depth:

29.50 ft from TOC

Depth to Water:

12.50

ft from TOC

Water Column:

17.00

ft

Water Column Volume:

7.72

gal (WC X VF)

Field Tech(s): Heather Tawzer

Weather Conditions: WARM 70'S

Volume	3/4" = 0.02	1" = 0.04	2" = .16	3" = .36
Factor (VF)	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 12.90

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (µS/cm)	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
14:51	0 0.5	18.7	-7	21.5	0.12	7.53	-5	v. cloudy	odor	
14:52	1 3.92	9.2	-55	21.9	0.19	6.71	-5	v. cloudy	odor	
14:54	2 6.52	8.4	-70	21.3	0.22	6.46	-5	v. cloudy	odor	
14:56	3 9.52	7.3	-73	21.4	0.21	6.42	880	v. cloudy	odor	
	4									

Sample Collection: 10/27/05

Date Sampled: 10/27/05

Sampling Method: Disposable Bailer/Other

Bailed

Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-4	3	40 mL glass vial	Ice/HCl	TPHg (8015), BTEX (8260), 5-Oxys (8260), 1,2-DCA (8260)	15:04
APRIL ONLY	1	1-Liter Poly	Ice	(APRIL ONLY) Dissolved metals (Chromium, Vanadium, Selenium, Lead, Molybdenum)	
APRIL ONLY	1	1-Liter Poly	Ice	(APRIL ONLY) Dissolved metal (Uranium)	
				*NOTE* Sample for Dissolved Metals Annually (April Only)	

Changed pig socks in well - 2 socks weighed 1.65 oz when brought up.  
 2 new socks weighed 4 oz's when dropped down.

## GROUNDWATER SAMPLING DATA SHEET

Site Address: 1075 Santa Rosa Avenue, Santa Rosa  
 ENSR No. 06940-268-100  
 Unocal No. 2672

Well/Piezo ID: MW-5

Well  Piezometer 

Well Purging:

Date Purged: 10-27-05

Purge Method: Disposable bailer/Other

*Older top pump  
PC*

Casing Material:

Well Diameter: 2.00 in.

Total Depth: 29.80 ft from TOC

Depth to Water: 12.84 ft from TOC

Water Column: 17.26 ft.

Water Column Volume: 2.76 gal (WC X VF)

Field Tech(s): *Troy Whalen*Weather Conditions: *Sunny (55°F)*

Volume	3/4" = 0.02	1" = 0.04	2" = 0.16	3" = 0.38
Factor (VF)	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 16.00

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity <i>(mS/cm)</i>	pH	Turbidity (NTUs)	Color/Clarity	Other <i>Oct 6/05</i>	Other
12:32	0 0.5	4.8	98	21.9	22	6.7	222	clear	none	
12:39	1 3.5	2.8	94	20.8	22	6.8	-50	gray/tan	none	
12:36	2 6.5	2.8	96	20.1	19	6.7	445	Clear	none	
12:38	3 9.5	4.7	93	21.0	21	6.7	347	"	"	
	4									

Sample Collection:

Date Sampled: 10-27-05

Sampling Method: Disposable Bailer/Other

Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-5	3	40 mL glass vial	Ice/HCl	TPHg (8015), BTEX (8260), 5-Oxys (8260), 1,2-DCA (8260)	12:48
APRIL ONLY	1	1-Liter Poly	Ice	(APRIL ONLY) Dissolved metals (Chromium, Vanadium, Selenium, Lead, Molybdenum)	
APRIL ONLY	1	1-Liter Poly	Ice	(APRIL ONLY) Dissolved metal (Uranium)	
				*NOTE* Sample for Dissolved Metals Annually (April Only)	

Comments

Signature

*T. Whalen*

Date: 10-27-05



## GROUNDWATER SAMPLING DATA SHEET

Site Address: 1075 Santa Rosa Avenue, Santa Rosa  
 ENSR No. 06940-268-100  
 Unocal No. 2672

Well/Piezo ID: MW-6

Well  Piezometer 

## Well Purging:

Date Purged: 10-27-05

Purge Method: Disposable bailer/other

Field Tech(s): Troy Johnson

Weather Conditions: Sunny (54°F)

Casing Material:

PVC

Well Diameter:

2.00 in.

Total Depth:

22.90 ft from TOC

Depth to Water:

13.10

ft from TOC

Water Column:

9.8

ft.

Water Column Volume:

1.56

gal (WC X VF)

Volume	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
Factor (VF)	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 15.00

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (µS/cm)	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
11:36	0 0.5	4.5	50	21.8	16	8.9	429	clear	none	
11:37	1 2.00	2.3	54	20.9	17	8.9	340	++	++	
11:38	2 4.00	2.9	53	21.0	17	8.9	29.8	++	++	
11:39	3 6.06	3.6	54	21.8	17	8.9	17.1	++	++	
	4									

## Sample Collection:

Date Sampled: 10-27-05

Sampling Method: Disposable Bailer/Other

Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-6	3	40 mL glass vial	Ice/HCl	TPHg (8015), BTEX (8260), 5-Oxys (8260), 1,2-DCA (8260)	11:49
	1	1-Liter Poly	Ice	(APRIL ONLY) Dissolved metals(Chromium, Vanadium, Selenium, Lead, Molybdenum)	
	1	1-Liter Poly	Ice	(APRIL ONLY) Dissolved metal (Uranium)	
				*NOTE* Sample for Dissolved Metals Annually (April Only)	

Comments:

Signature:

Date: 10-27-05

## GROUNDWATER SAMPLING DATA SHEET

Site Address: 1075 Santa Rosa Avenue, Santa Rosa  
 ENSR No. 06940-268-100  
 Unocal No. 2672

Well/Piezo ID: MW-7

Well  Piezometer 

Well Purging:

Date Purged: 10-27-05

Purge Method: Disposable bailer/other

Field Tech(s): Troy WenzelmanWeather Conditions: Sunny (52°F)

Casing Material:

PVC

2.00 in.

Total Depth:

23.30 ft from TOC

Depth to Water:

12.61

ft from TOC

Water Column:

10.69

ft.

Water Column Volume:

1.71

gal (WC X VF)

Volume	3/4" = .02	1" = .04	2" = .16	3" = .38
Factor (VF)	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC = Total Depth - (Water Column X .8) = 14.75

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity ( $\mu\text{S/cm}^5/\text{m}$ )	pH	Turbidity (NTUs)	Color/Clarity	Other odor	Other
11:12	0 0.5	12.2	-104	22.3	.14	7.8	730	clear	none	
11:13	1 2.21	5.2	-107	21.4	.16	8.0	357	"	"	
11:14	2 4.21	3.9	-105	21.1	.15	8.0	324	"	"	
11:15	3 6.21	3.3	-107	21.7	.15	8.0	259	"	"	
	4									

Sample Collection:

Date Sampled: 10-27-05

Sampling Method: Disposable Bailer/Other

Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-7	3	40 mL glass vial	Ice/HCl	TPHg (8015), BTEX (8260), 5-Oxys (8260), 1,2-DCA (8260)	11:25
APRIL ONLY	1	1-Liter Poly	Ice	(APRIL ONLY) Dissolved metals(Chromium, Vanadium, Selenium, Lead, Molybdenum)	
APRIL ONLY	1	1-Liter Poly	Ice	(APRIL ONLY) Dissolved metal (Uranium)	
				*NOTE* Sample for Dissolved Metals Annually (April Only)	

Comments:

Troy Wenzelman

Signature:

Date 10-27-05

ENSR.

## GROUNDWATER SAMPLING DATA SHEET

Site Address: 1075 Santa Rosa Avenue, Santa Rosa  
 ENSR No. 06940-268-100  
 Unocal No. 2672

Well/Piezo ID: MW-8

Well  Piezometer 

## Well Purging:

Date Purged: 10-27-05

Purge Method: Disposable bailer/other

*Groundwater pump  
PVC*Field Tech(s): *Troy Wenham*Weather Conditions: *Sunny (56°F)*

Casing Material:

Well Diameter:

2.00 in.

Total Depth:

26.70 ft from TOC

Depth to Water:

12.50

ft from TOC

Water Column:

14.20

ft.

Water Column Volume:

2.27

gal (WC X VF)

Volume	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
Factor (VF)	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column X .8) = *15.34*

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (dS/m)	pH	Turbidity (NTUs)	Color/Clarity	Other odor	Other
14:13	0 0.5	6.0	-145	22.7	14	7.3	58	clear	none	
14:15	1 4.0	6.0	-135	21.7	18	7.3	77	clear	none	
14:17	2 8.0	4.3	-130	21.8	19	6.9	58	clear	none	
14:19	3 12.0	4.0	-129	22.0	19	6.9	53	clear	none	
	4									

## Sample Collection:

Date Sampled: 10-27-05

Sampling Method: Disposable Bailer/Other

Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-6	3	40 mL glass vial	Ice/HCl	TPHg (8015), BTEX (8260), 5-Oxys (8260), 1,2-DCA (8260)	14:30
APRIL ONLY	1	1-Liter Poly	Ice	(APRIL ONLY) Dissolved metals(Chromium, Vanadium, Selenium, Lead, Molybdenum)	
APRIL ONLY	1	1-Liter Poly	Ice	(APRIL ONLY) Dissolved metal (Uranium)	
				*NOTE* Sample for Dissolved Metals Annually (April Only)	

Comments:

*J. Miller*

Signature

Date: 10-27-05

ENSR

Time recorded: 09:07  
Time dictated: 09:13

## GROUNDWATER SAMPLING DATA SHEET

Site Address: 1075 Santa Rosa Avenue, Santa Rosa  
 ENSR No. 06940-268-100  
 Unocal No. 2672

Well/Piezo ID: MW-9

Well  Piezometer 

Well Purgung: 10/27/05

Date Purged:

Purge Method: Disposable bailer/other

Field Tech(s): Heather Tautscher

Weather Conditions: some clouds 60's

Casing Material: PVC

Well Diameter: 2.00 in

Total Depth: 24.24 ft from TOC

Depth to Water: 10.82 ft from TOC

Water Column: 13.42 ft.

Water Column Volume: 2.14 gal (WC X VF)

Volume	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
Factor (VF)	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 11.42

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ ) $\frac{\mu\text{S}}{\text{cm}}$	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
09:17	0 0.5	19.9	234	20.4	0.11	5.25	430	clear	no odor	
09:18	1 2.64	5.1	229	20.9	0.10	5.82	250	clear	no odor	
09:19	2 4.64	3.4	217	21.1	0.10	6.02	260	clear	no odor	
09:20	3 6.64	2.3	214	21.1	0.10	6.12	250	clear	no odor	
	4									

Sample Collection:

Date Sampled: 10/27/05

Sampling Method: Disposable Bailer/Other

Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-9	3	40 mL glass vial	Ice/HCl	TPHg (8015), BTEX (8260), 5-Oxys (8260), 1,2-DCA (8260)	09:28

Comments: DO NOT SAMPLE FOR METALS - EVER.

## GROUNDWATER SAMPLING DATA SHEET

Site Address: 1075 Santa Rosa Avenue, Santa Rosa  
 ENSR No. 06940-268-100  
 Unocal No. 2672

Well/Piezo ID: MW-10

Well  Piezometer 

## Well Purging:

Date Purged: 10-27-05

Purge Method: Disposable bailer/other

Field Tech(s): Troy Warkham

Groundwater pump

Casing Material:

PVC

Well Diameter:

2.00 in.

Total Depth:

24.25 ft from TOC

Depth to Water:

10.50

ft from TOC

Water Column:

13.75

ft.

Water Column Volume:

22

gal (WC X VF)

Volume	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
Factor (VF)	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC = Total Depth - (Water Column X .8) = 13.25

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (µS/cm)	pH	Turbidity (NTUs)	Color/Clarity	Other Odor	Other
09:30	0 0.5	6.9	245	19.9	111	4.18	5.0	gray/Cloudy	None	
09:32	1 3.0	4.1	241	20.0	112	4.3	6.9	clear	None	
09:34	2 6.0	4.0	238	20.1	112	4.4	142	11	11	
09:36	3 9.0	4.1	231	20.1	112	4.4	112	11	11	
	4									

## Sample Collection:

Date Sampled: 10-27-05

Sampling Method: Disposable Bailer/Other

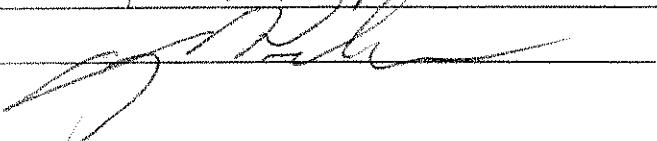
Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-10	3	40 mL glass vial	Ice/HCl	TPHg (8015), BTEX (8260), 5-Oxys (8260), 1,2-DCA (8260)	09:46

Comments: DO NOT SAMPLE FOR METALS - EVER.

Primary purge pump malfunction. Switch to back-up purge pump.

Signature:



Date: 10-27-05



## GROUNDWATER SAMPLING DATA SHEET

Site Address: 1075 Santa Rosa Avenue, Santa Rosa  
 ENSR No. 06940-268-100  
 Unocal No. 2672

Well/Piezo ID: MW-11

Well  Piezometer 

Well Purging:

Date Purged: 10-27-05

Purge Method: Disposable bailer/other

Field Tech(s): Troy Warburton

Weather Conditions: Sunny (54°F)

Casing Material:

Groundwater pump

Well Diameter:

2.00 in.

Total Depth:

23.05 ft from TOC

Depth to Water:

11.61

ft from TOC

Water Column:

11.44

ft.

Water Column Volume:

1.43

gal (WC X VF)

Volume	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
Factor (VF)	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 13.9

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (µS/cm)	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
12:00	0 0.5	9.4	-39	22.4	166	7.4	178	Clear	Noise	
12:01	1 2.5	3.1	-43	21.8	176	7.4	208	"	"	
12:02	2 4.5	2.9	-64	21.6	171	7.5	157	"	"	
12:03	3 6.5	3.1	-75	21.9	178	7.7	226	"	"	
	4									

Sample Collection:

Date Sampled: 10-27-05

Sampling Method: Disposable Bailor/Other

Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-11	3	40 mL glass vial	Ice/HCl	TPHg (8015), BTEX (8260), 5-Oxys (8260), 1,2-DCA (8260)	12:15

Comments: DO NOT SAMPLE FOR METALS - EVER.

Signature:

Date: 10-27-05

## GROUNDWATER SAMPLING DATA SHEET

Site Address: 1075 Santa Rosa Avenue, Santa Rosa  
 ENSR No. 06940-268-100  
 Unocal No. 2672

Well/Piezo ID: MW-12A

Well  Piezometer 

Well Purging: 10/27/05

Date Purged: 10/27/05

Purge Method: Disposable bailer/other groundfoss

Casing Material: pvc

Well Diameter: 2.00 in.

Total Depth: 54.80 ft from TOC

Depth to Water: 13.82 ft from TOC

Water Column: 10.98 ft.

Water Column Volume: 4.5 gal (WC X VF)

Field Tech(s): Heather Tansker

Weather Conditions: warm 70°

Volume	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
Factor (VF)	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 22.02

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (µS/cm)	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
10:57	0 0.5	14.7	278	20.0	0.18	6.53	-5	v. cloudy	no odor	
11:03	1 7.0	1.9	277	20.2	0.18	6.43	590	cloudy	no odor	
11:06	2 14.0	1.0	272	20.2	0.18	6.43	260	clear	no odor	
11:09	3 21.0	1.0	269	20.2	0.18	6.42	270	clear	no odor	
	4									

Sample Collection:

Date Sampled: 10/27/05

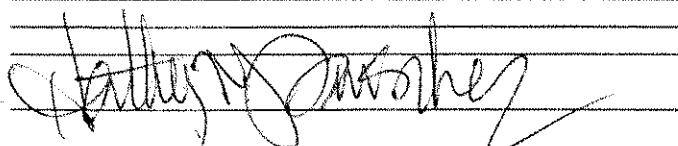
Sampling Method: Disposable Bailer/Other bailed

Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-12-K	3	40 mL glass vial	Ice/HCl	TPHg (8015), BTEX (8260), 5-Oxys (8260), 1,2-DCA (8260)	11:13

Comments: DO NOT SAMPLE FOR METALS - EVER.

Signature



Date 10/27/05

## GROUNDWATER SAMPLING DATA SHEET

Site Address: 1075 Santa Rosa Avenue, Santa Rosa  
 ENSR No. 06940-268-100  
 Unocal No. 2672

Well/Piezo ID: MW-12B

Well  Piezometer 

## Well Purging:

Date Purged: 10/27/05

Purge Method: Disposable bailer/other groundfos

Casing Material:

SPVC

Well Diameter:

2.00 in.

Total Depth:

84.79 ft from TOC

Depth to Water:

14.87 ft from TOC

Water Column:

69.92 ft

Water Column Volume:

11.18 gal (WC X VF)

Field Tech(s): Heather Tautcher

Weather Conditions: Warm 70's

Volume	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
Factor (VF)	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC = Total Depth - (Water Column X .8) = 28.86

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (µS/cm)	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
11:21	0	0.5	12.7	243	0.13	7.36	210	clear	no odor	
11:27	1	11.08	3.3	260	0.14	6.96	420	little cloudy	no odor	
11:33	2	22.48	1.6	253	0.13	6.76	280	clear	no odor	
11:39	3	33.48	1.3	249	0.13	6.72	250	clear	no odor	
	4									

## Sample Collection:

Date Sampled: 10/27/05

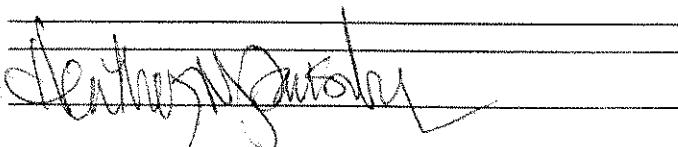
Sampling Method: Disposable Bailer/Other bailed

Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-12B	3	40 mL glass vial	Ice/HCl	TPHg (8015), BTEX (8260), 5-Oxys (8260), 1,2-DCA (8260)	11:46

Comments: DO NOT SAMPLE FOR METALS - EVER.

Signature:



Date:

10/27/05

## GROUNDWATER SAMPLING DATA SHEET

Site Address: 1075 Santa Rosa Avenue, Santa Rosa  
 ENSR No. 06940-268-100  
 Unocal No. 2672

Well/Piez ID: MW-13A

Well  Piezometer Well Purging: 10/27/05Date Purged: 10/27/05Purge Method: Disposable bailer/other gravelfossCasing Material: PVCWell Diameter: 2.00 in.Total Depth: 54.71 ft from TOCDepth to Water: 13.08 ft from TOCWater Column: 41.63 ft.Water Column Volume: 6.146 gal (WC X VF)Field Tech(s): Heather DauschenWeather Conditions: Warm 70's

Volume	$3/4" = 0.02$	$1" = 0.04$	$2" = .16$	$3" = .38$
Factor (VF)	$4" = .66$	$5" = 1.02$	$6" = 1.50$	$12" = 5.80$

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 21.41

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity ( $\mu\Omega/cm$ )	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
12:00	0 0.5	13.5	261	21.1	0.14	7.15	266	clear	no odor	
12:03	1 7.14	2.7	263	20.4	0.14	6.78	-5	v. cloudy	no odor	
12:06	2 14.16	1.5	263	20.4	0.14	6.68	-5	v. cloudy	no odor	
12:09	3 21.16	1.0	261	20.4	0.14	6.64	-5	v. cloudy	no odor	
	4									

Sample Collection:

Date Sampled: 10/27/05Sampling Method: Disposable Bailer/Other Bailed

Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-13A	3	40 mL glass vial	Ice/HCl	TPHg (8015), BTEX (8260), 5-Oxys (8260), 1,2-DCA (8260)	12:14

Comments: DO NOT SAMPLE FOR METALS - EVER.

Signature: Heather DauschenDate: 10/27/05

ENSR.

## GROUNDWATER SAMPLING DATA SHEET

Site Address: 1075 Santa Rosa Avenue, Santa Rosa  
 ENSR No. 06940-268-100  
 Unocal No. 2672

Well/Piezo ID: MW-13B

Well  Piezometer 

Well Purging:

Date Purged: 10/27/05

Purge Method: Disposable Bailer/other Grundfos

Casing Material: PVC

Well Diameter: 2.00 in.

Total Depth: 84.44 ft from TOC

Depth to Water: 13.54 ft from TOC

Water Column: 70.9 ft.

Water Column Volume: 11.34 gal (WC X VF)

Field Tech(s): Heather Tascher

Weather Conditions: warm 70's

Volume	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
Factor (VF)	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 28.

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (µS/cm) S/cm	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
12:26	0 0.5	19.4	255	20.4	0.14	7.09	460	cloudy	no odor	
12:31	1 11.84	1.8	254	20.3	0.15	6.83	-5	v.cloudy	no odor	
12:36	2 22.84	1.5	251	20.4	0.15	6.77	-5	v.cloudy	no odor	
12:41	3 33.84	1.7	248	20.5	0.15	6.73	860	cloudy	no odor	
	4									

Sample Collection:

Date Sampled: 10/27/05

Sampling Method: Disposable Bailer/Other Bailed

Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-13B	3	40 mL glass vial	Ice/HCl	TPHg (8015), BTEX (8260), 5-Oxys (8260), 1,2-DCA (8260)	12:49

Comments: DO NOT SAMPLE FOR METALS - EVER.

Signature

*Heather M. Tascher*

Date:

10/27/05

## GROUNDWATER SAMPLING DATA SHEET

Site Address: 1075 Santa Rosa Avenue, Santa Rosa  
 ENSR No. 06940-268-100  
 Unocal No. 2672

Well/Piezo ID: MW-14A

Well  Piezometer 

Well Purging:

Date Purged: 10/27/05

Purge Method: Disposable bailer/other grundfos

Casing Material:

PVC

Well Diameter: 2.00 in.

Total Depth: 54.99 ft from TOC

Depth to Water: 14.60 ft from TOC

Water Column: 40.39 ft.

Water Column Volume: 6.46 gal (WC X VF)

Field Tech(s): Heather Tauscher

Weather Conditions: Warm 70's

Volume	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
Factor (VF)	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 22.48

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
13:03	0 0.5	19.5	251	20.7	0.18	6.94	710	Cloudy	no odor	
13:06	1 6.96	8.3	2161	21.1	0.18	6.57	670	Cloudy	no odor	
13:09	2 12.94	19.6	259	20.6	0.19	6.56	-5	V. cloudy	no odor	
13:12	3 18.96	19.4	280	21.1	0.19	6.67	870	cloudy	no odor	
	4									

Sample Collection:

Date Sampled: 10/27/05

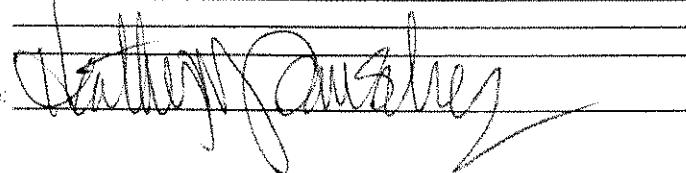
Sampling Method: Disposable Bailer/Other

Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-14A	3	40 mL glass vial	Ice/HCl	TPHg (8015), BTEX (8260), 5-Oxys (8260), 1,2-DCA (8260)	13:17

Comments: DO NOT SAMPLE FOR METALS - EVER.

Signature:



Date: 10/27/05

ENSR.

## GROUNDWATER SAMPLING DATA SHEET

Site Address: 1075 Santa Rosa Avenue, Santa Rosa  
 ENSR No. 06940-268-100  
 Unocal No. 2672

Well/Piezo ID: MW-14B

Well  Piezometer 

Well Purging:

Date Purged: 10/27/05

Purge Method: Disposable bailer/other groundfos

Casing Material:

Well Diameter: 2.00 in.

Total Depth: 84.98 ft from TOC

Depth to Water: 15.16 ft from TOC

Water Column: 69.82 ft

Water Column Volume: 11.17 gal (WC X VF)

Field Tech(s): Heather Tascher

Weather Conditions: Warm, 70's

Volume	3/4" = 0.02	1" = 0.04	2" = 0.16	3" = 0.38
Factor (VF)	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 29.13

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity ( $\mu\text{mho/cm}$ )	pH	Turbidity (NTUs)	Color/Clarity	Other	Other
13:27	0 0.5	19.9	253	20.6	0.13	7.71	210	clear	no odor	
13:32	1 11.67	16.3	259	19.9	0.14	6.74	-5	v. cloudy	no odor	
13:37	2 22.67	15.1	2530	20.0	0.14	6.67	510	cloudy	no odor	
13:42	3 33.67	13.2	255	19.9	0.14	6.67	460	cloudy	no odor	
	4									

Sample Collection:

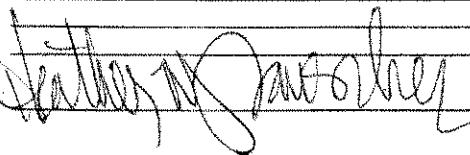
Date Sampled: 10/27/05

Sampling Method: Disposable Bailer/Other bailer

Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-14B	3	40 mL glass vial	Ice/HCl	TPHg (8015), BTEX (8260), 5-Oxys (8260), 1,2-DCA (8260)	13:47

Comments: DO NOT SAMPLE FOR METALS - EVER.

Signature: 

Date: 10/27/05

ENSR.

## GROUNDWATER SAMPLING DATA SHEET

Site Address: 1075 Santa Rosa Avenue, Santa Rosa  
 ENSR No. 06940-268-100  
 Unocal No. 2672

Well/Piezo ID: MW-15

Well  Piezometer 

Well Purging:

Date Purged: 10-27-05

Purge Method: Disposable bailer/other

*Groundwater pump*

Casing Material

Well Diameter: 2.00 in.

Total Depth: 19.94 ft from TOC

Depth to Water: 11.75 ft from TOC

Water Column: 8.17 ft.

Water Column Volume: 1.31 gal (WC X VF)

Field Tech(s): Troy Wadsworth

Weather Conditions: Sunny (53°F)

Volume	3/4" = 0.02	1" = 0.04	2" = .16	3" = .38
Factor (VF)	4" = .66	5" = 1.02	6" = 1.50	12" = 5.80

80% Recovery from TOC: = Total Depth - (Water Column X .8) = 13.3

Time	Volume Removed (gal)	DO (mg/L)	Redox Potential (ORP) (mVolts)	Temperature (°C)	Specific Conductivity (µS/cm)	pH	Turbidity (NTUs)	Color/Clarity	Other Notes	Other
10:46	0 0.5	5.9	71	22.0	.126	6.4	6470	clear	none	
10:49	1 1.81	2.5	14	21.7	.114	7.0	9990	"	"	
10:50	2 2.81	3.6	12	22.0	.115	7.1	362	"	"	
10:51	3 3.81	3.8	14	22.0	.114	7.1	290			
	4									

Sample Collection:

Date Sampled: 10-27-05

Sampling Method: Disposable Bailer/Other *Bailer*

Sample Type: Grab

Sample ID	# of containers	Container Type	Preservation	Analysis	Time
MW-15	3	40 mL glass vial	Ice/HCl	TPHg (8015), BTEX (8260), 5-Oxys (8260), 1,2-DCA (8260)	11:00

Comments: DO NOT SAMPLE FOR METALS - EVER.

Signature

*Troy Wadsworth*

Date: 10-27-05



**ATTACHMENT C**

**LABORATORY ANALYTICAL RESULTS WITH  
CHAIN-OF-CUSTODY DOCUMENTATION**

# CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

November 04, 2005

**CLS Work Order #: COJ1008**  
**COC #: No Number**

Margret Riggan  
ENSR - Sacramento  
10411 Old Placerville Rd., Suite 210  
Sacramento, CA 95827-2508

**Project Name:**

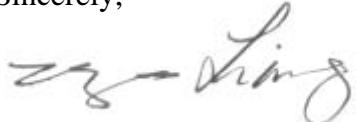
**FormerUnocal2672,1075SantaRosaAve.,SantaRos**

**a,CA**

Enclosed are the results of analyses for samples received by the laboratory on 10/28/05 09:00.  
Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved  
methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.  
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

# CHAIN OF CUSTODY

Page 1 of 1

Lab: CLS

TAT: Standard

CaJ 1008

Report results to:

Name: Margaret Riggan  
 Company: ENSR  
 Mailing Address: 10411 Old Placerville Road, Suite 210  
 City, State, Zip: Sacramento, CA 95827-2508  
 Telephone No.: 916-362-7100  
 Fax No.: 916-362-8100

Project Information

Site Address: 1075 Santa Rosa Avenue, Santa Rosa  
 ENSR No. 06940-268-100  
 Unocal No. 2672  
 Global ID No. T0609700503

Special instructions and/or specific regulatory requirements:

METALS: Second Quarter

Metals samples filtered, collect in two 1-Liter Polys  
 Non-preserved.

Sample Identification	Date Sampled	Time Sampled	Matrix/ Media	No. of Conts.	Analyses Requested								Preservative
					TPHg (8015)	BTEX (8260)	5-Oxys / TBA / MTBE / DiPE (8260)	ETBE / TAME / 1,2-DCA (8260)	Chromium, Vanadium, Selenium (Filtered)	Lead, Molybdenum (Filtered)	Uranium (Filtered)		
MW-1	10-27-05	13:50	GW	3	X	X	X	X					Ice/HCL
MW-2	10/27/05	14:34	GW	3	X	X	X	X					Ice/HCL
MW-3	10-27-05	13:20	GW	3	X	X	X	X					Ice/HCL
MW-4	10/27/05	15:04	GW	3	X	X	X	X					Ice/HCL
MW-5	10-27-05	12:48	GW	3	X	X	X	X					Ice/HCL
MW-6	10-27-05	11:49	GW	3	X	X	X	X					Ice/HCL
MW-7	10-27-05	11:25	GW	3	X	X	X	X					Ice/HCL
MW-8	10-27-05	14:30	GW	3	X	X	X	X					Ice/HCL
MW-9	10/27/05	09:28	GW	3	X	X	X	X					Ice/HCL
MW-10	10-27-05	09:46	GW	3	X	X	X	X					Ice/HCL
MW-11	10-27-05	12:05	GW	3	X	X	X	X					Ice/HCL
MW-12A	10/27/05	11:13	GW	3	X	X	X	X					Ice/HCL
MW-12B	10/27/05	11:46	GW	3	X	X	X	X					Ice/HCL
MW-13A	10/27/05	12:14	GW	3	X	X	X	X					Ice/HCL
MW-13B	10/27/05	12:49	GW	3	X	X	X	X					Ice/HCL
MW-14A	10/27/05	13:17	GW	3	X	X	X	X					Ice/HCL
MW-14B	10/27/05	13:47	GW	3	X	X	X	X					Ice/HCL
MW-15	10-27-05	11:00	GW	3	X	X	X	X					Ice/HCL
QA	10-27-05	00:00	Liquid	47	X	X							Ice/HCL

Collected by:

Troy Warden, Heather T. Date/Time 10-27-05

Collector's Signature:

Date/Time 10-28-05

Relinquished by:

Troy Warden Date/Time 10-28-05/09:00

Received by:

Date/Time

Relinquished by:

Date/Time

Received by:

Date/Time 10-28-5 09:09

Method of Shipment:

Sample Condition on Rcpt:

DA

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ENSR - Sacramento  
10411 Old Placerville Rd., Suite 210  
Sacramento, CA 95827-2508

Project: FormerUnocal2672,1075SantaRosaAve,SantaRosa,CA  
Project Number: 06940-268-100  
CLS Work Order #: COJ1008  
Project Manager: Margaret Riggan

## TPH-Gasoline by GC FID

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (COJ1008-01) Water Sampled: 10/27/05 13:50 Received: 10/28/05 09:00</b>									
Gasoline	4700	500	µg/L	10	CO08273	10/28/05	10/28/05	EPA 8015M	GC-25
Surrogate: o-Chlorotoluene (Gas) 94.5 % 65-135 " " " "									
<b>MW-2 (COJ1008-02) Water Sampled: 10/27/05 14:34 Received: 10/28/05 09:00</b>									
Gasoline	20000	1000	µg/L	20	CO08273	10/28/05	10/28/05	EPA 8015M	GC-25
Surrogate: o-Chlorotoluene (Gas) 93.5 % 65-135 " " " "									
<b>MW-3 (COJ1008-03) Water Sampled: 10/27/05 13:20 Received: 10/28/05 09:00</b>									
Gasoline	640	50	µg/L	1	CO08273	10/28/05	10/28/05	EPA 8015M	GC-25
Surrogate: o-Chlorotoluene (Gas) 96.5 % 65-135 " " " "									
<b>MW-4 (COJ1008-04) Water Sampled: 10/27/05 15:04 Received: 10/28/05 09:00</b>									
Gasoline	38000	1000	µg/L	20	CO08273	10/28/05	10/28/05	EPA 8015M	GC-25
Surrogate: o-Chlorotoluene (Gas) 95.0 % 65-135 " " " "									
<b>MW-5 (COJ1008-05) Water Sampled: 10/27/05 12:48 Received: 10/28/05 09:00</b>									
Gasoline	ND	50	µg/L	1	CO08273	10/28/05	10/28/05	EPA 8015M	
Surrogate: o-Chlorotoluene (Gas) 90.5 % 65-135 " " " "									
<b>MW-6 (COJ1008-06) Water Sampled: 10/27/05 11:49 Received: 10/28/05 09:00</b>									
Gasoline	ND	50	µg/L	1	CO08273	10/28/05	10/28/05	EPA 8015M	
Surrogate: o-Chlorotoluene (Gas) 91.0 % 65-135 " " " "									
<b>MW-7 (COJ1008-07) Water Sampled: 10/27/05 11:25 Received: 10/28/05 09:00</b>									
Gasoline	230	50	µg/L	1	CO08273	10/28/05	10/28/05	EPA 8015M	GAS-1
Surrogate: o-Chlorotoluene (Gas) 98.5 % 65-135 " " " "									

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ENSR - Sacramento  
10411 Old Placerville Rd., Suite 210  
Sacramento, CA 95827-2508

Project: FormerUnocal2672,1075SantaRosaAve,SantaRosa,CA  
Project Number: 06940-268-100  
CLS Work Order #: COJ1008  
Project Manager: Margaret Riggan

## TPH-Gasoline by GC FID

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-8 (COJ1008-08) Water Sampled: 10/27/05 14:30 Received: 10/28/05 09:00</b>									
Gasoline	12000	1000	µg/L	20	CO08273	10/28/05	10/28/05	EPA 8015M	GAS-1, GC-25
Surrogate: o-Chlorotoluene (Gas) 108 % 65-135 " " " "									
<b>MW-9 (COJ1008-09) Water Sampled: 10/27/05 09:28 Received: 10/28/05 09:00</b>									
Gasoline	ND	50	µg/L	1	CO08273	10/28/05	10/28/05	EPA 8015M	
Surrogate: o-Chlorotoluene (Gas) 88.5 % 65-135 " " " "									
<b>MW-10 (COJ1008-10) Water Sampled: 10/27/05 09:46 Received: 10/28/05 09:00</b>									
Gasoline	ND	50	µg/L	1	CO08273	10/28/05	10/28/05	EPA 8015M	
Surrogate: o-Chlorotoluene (Gas) 93.5 % 65-135 " " " "									
<b>MW-11 (COJ1008-11) Water Sampled: 10/27/05 12:15 Received: 10/28/05 09:00</b>									
Gasoline	ND	50	µg/L	1	CO08226	10/28/05	10/31/05	EPA 8015M	
Surrogate: o-Chlorotoluene (Gas) 108 % 65-135 " " " "									
<b>MW-12A (COJ1008-12) Water Sampled: 10/27/05 11:13 Received: 10/28/05 09:00</b>									
Gasoline	ND	50	µg/L	1	CO08226	10/28/05	10/31/05	EPA 8015M	
Surrogate: o-Chlorotoluene (Gas) 107 % 65-135 " " " "									
<b>MW-12B (COJ1008-13) Water Sampled: 10/27/05 11:46 Received: 10/28/05 09:00</b>									
Gasoline	ND	50	µg/L	1	CO08226	10/28/05	10/31/05	EPA 8015M	
Surrogate: o-Chlorotoluene (Gas) 107 % 65-135 " " " "									
<b>MW-13A (COJ1008-14) Water Sampled: 10/27/05 12:14 Received: 10/28/05 09:00</b>									
Gasoline	ND	50	µg/L	1	CO08280	10/31/05	10/31/05	EPA 8015M	
Surrogate: o-Chlorotoluene (Gas) 96.5 % 65-135 " " " "									

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ENSR - Sacramento  
10411 Old Placerville Rd., Suite 210  
Sacramento, CA 95827-2508

Project: FormerUnocal2672,1075SantaRosaAve,SantaRosa,CA  
Project Number: 06940-268-100  
CLS Work Order #: COJ1008  
Project Manager: Margaret Riggin

## TPH-Gasoline by GC FID

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-13B (COJ1008-15) Water   Sampled: 10/27/05 12:49   Received: 10/28/05 09:00</b>									
Gasoline	ND	50	µg/L	1	CO08280	10/31/05	10/31/05	EPA 8015M	
<i>Surrogate: o-Chlorotoluene (Gas)</i>	96.0 %	65-135		"	"	"	"	"	
<b>MW-14A (COJ1008-16) Water   Sampled: 10/27/05 13:17   Received: 10/28/05 09:00</b>									
Gasoline	ND	50	µg/L	1	CO08280	10/31/05	10/31/05	EPA 8015M	
<i>Surrogate: o-Chlorotoluene (Gas)</i>	98.5 %	65-135		"	"	"	"	"	
<b>MW-14B (COJ1008-17) Water   Sampled: 10/27/05 13:47   Received: 10/28/05 09:00</b>									
Gasoline	ND	50	µg/L	1	CO08280	10/31/05	10/31/05	EPA 8015M	
<i>Surrogate: o-Chlorotoluene (Gas)</i>	95.0 %	65-135		"	"	"	"	"	
<b>MW-15 (COJ1008-18) Water   Sampled: 10/27/05 11:00   Received: 10/28/05 09:00</b>									
Gasoline	ND	50	µg/L	1	CO08280	10/31/05	10/31/05	EPA 8015M	
<i>Surrogate: o-Chlorotoluene (Gas)</i>	96.0 %	65-135		"	"	"	"	"	
<b>QA (COJ1008-19) Water   Sampled: 10/27/05 00:00   Received: 10/28/05 09:00</b>									
Gasoline	ND	50	µg/L	1	CO08280	10/31/05	10/31/05	EPA 8015M	
<i>Surrogate: o-Chlorotoluene (Gas)</i>	94.5 %	65-135		"	"	"	"	"	

# CALIFORNIA LABORATORY SERVICES

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ENSR - Sacramento  
10411 Old Placerville Rd., Suite 210  
Sacramento, CA 95827-2508

Project: FormerUnocal2672,1075SantaRosaAve,SantaRosa,CA  
CLS Work Order #: COJ1008  
Project Number: 06940-268-100  
Project Manager: Margaret Riggin

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (COJ1008-01) Water Sampled: 10/27/05 13:50 Received: 10/28/05 09:00</b>									
Di-isopropyl ether	ND	1.0	µg/L	2	CO08278	10/31/05	10/31/05	EPA 8260B	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>4.5</b>	1.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	10	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
<b>Benzene</b>	<b>470</b>	1.0	"	"	"	"	"	"	
<b>Toluene</b>	<b>210</b>	1.0	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>300</b>	1.0	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>300</b>	2.0	"	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>									
		100 %		72-125		"	"	"	"
<b>MW-2 (COJ1008-02) Water Sampled: 10/27/05 14:34 Received: 10/28/05 09:00</b>									
Di-isopropyl ether	ND	10	µg/L	20	CO08278	10/31/05	10/31/05	EPA 8260B	
Ethyl tert-butyl ether	ND	10	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>350</b>	10	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	10	"	"	"	"	"	"	
<b>Tert-butyl alcohol</b>	<b>990</b>	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	10	"	"	"	"	"	"	
<b>Benzene</b>	<b>2500</b>	10	"	"	"	"	"	"	
<b>Toluene</b>	<b>140</b>	10	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>770</b>	10	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>1600</b>	20	"	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>									
		99.7 %		72-125		"	"	"	"

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ENSR - Sacramento  
10411 Old Placerville Rd., Suite 210  
Sacramento, CA 95827-2508

Project: FormerUnocal2672,1075SantaRosaAve,SantaRosa,CA  
CLS Work Order #: COJ1008  
Project Number: 06940-268-100  
Project Manager: Margaret Riggin

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3 (COJ1008-03) Water Sampled: 10/27/05 13:20 Received: 10/28/05 09:00</b>									
Di-isopropyl ether	ND	0.50	µg/L	1	CO08217	10/28/05	10/28/05	EPA 8260B	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>56</b>	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
<b>Tert-butyl alcohol</b>	<b>64</b>	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
<b>Benzene</b>	<b>7.3</b>	0.50	"	"	"	"	"	"	
<b>Toluene</b>	<b>2.9</b>	0.50	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>25</b>	0.50	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>16</b>	1.0	"	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>									
		102 %		72-125		"	"	"	"
<b>MW-4 (COJ1008-04) Water Sampled: 10/27/05 15:04 Received: 10/28/05 09:00</b>									
Di-isopropyl ether	ND	50	µg/L	100	CO08278	10/31/05	10/31/05	EPA 8260B	
Ethyl tert-butyl ether	ND	50	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>71</b>	50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	50	"	"	"	"	"	"	
<b>Tert-butyl alcohol</b>	<b>2300</b>	500	"	"	"	"	"	"	
1,2-Dichloroethane	ND	50	"	"	"	"	"	"	
<b>Benzene</b>	<b>9600</b>	50	"	"	"	"	"	"	
<b>Toluene</b>	<b>2200</b>	50	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>1600</b>	50	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>7900</b>	100	"	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>									
		98.8 %		72-125		"	"	"	"

# CALIFORNIA LABORATORY SERVICES

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ENSR - Sacramento  
10411 Old Placerville Rd., Suite 210  
Sacramento, CA 95827-2508

Project: FormerUnocal2672,1075SantaRosaAve,SantaRosa,CA  
Project Number: 06940-268-100  
CLS Work Order #: COJ1008  
Project Manager: Margaret Riggin

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-5 (COJ1008-05) Water Sampled: 10/27/05 12:48 Received: 10/28/05 09:00</b>									
Di-isopropyl ether	ND	0.50	µg/L	1	CO08217	10/28/05	10/28/05	EPA 8260B	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>0.64</b>	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>									
		99.4 %		72-125		"	"	"	"
<b>MW-6 (COJ1008-06) Water Sampled: 10/27/05 11:49 Received: 10/28/05 09:00</b>									
Di-isopropyl ether	ND	0.50	µg/L	1	CO08278	10/31/05	10/31/05	EPA 8260B	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>ND</b>	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>									
		98.9 %		72-125		"	"	"	"

# CALIFORNIA LABORATORY SERVICES

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ENSR - Sacramento  
10411 Old Placerville Rd., Suite 210  
Sacramento, CA 95827-2508

Project: FormerUnocal2672,1075SantaRosaAve,SantaRosa,CA  
Project Number: 06940-268-100  
CLS Work Order #: COJ1008  
Project Manager: Margaret Riggin

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-7 (COJ1008-07) Water Sampled: 10/27/05 11:25 Received: 10/28/05 09:00</b>									
Di-isopropyl ether	ND	0.50	µg/L	1	CO08217	10/28/05	10/28/05	EPA 8260B	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
 <i>Surrogate: Toluene-d8</i>									
		94.0 %		72-125		"	"	"	"
<b>MW-8 (COJ1008-08) Water Sampled: 10/27/05 14:30 Received: 10/28/05 09:00</b>									
Di-isopropyl ether	33	5.0	µg/L	10	CO08278	10/31/05	10/31/05	EPA 8260B	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	5.0	"	"	"	"	"	"	
Tert-butyl alcohol	460	50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
Benzene	1100	5.0	"	"	"	"	"	"	
Toluene	85	5.0	"	"	"	"	"	"	
Ethylbenzene	310	5.0	"	"	"	"	"	"	
Xylenes (total)	260	10	"	"	"	"	"	"	
 <i>Surrogate: Toluene-d8</i>									
		99.3 %		72-125		"	"	"	"

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ENSR - Sacramento  
10411 Old Placerville Rd., Suite 210  
Sacramento, CA 95827-2508

Project: FormerUnocal2672,1075SantaRosaAve,SantaRosa,CA  
Project Number: 06940-268-100  
CLS Work Order #: COJ1008  
Project Manager: Margaret Riggin

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-9 (COJ1008-09) Water Sampled: 10/27/05 09:28 Received: 10/28/05 09:00</b>									
Di-isopropyl ether	ND	0.50	µg/L	1	CO08278	10/31/05	10/31/05	EPA 8260B	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>									
97.8 %      72-125									
<b>MW-10 (COJ1008-10) Water Sampled: 10/27/05 09:46 Received: 10/28/05 09:00</b>									
Di-isopropyl ether	ND	0.50	µg/L	1	CO08278	10/31/05	10/31/05	EPA 8260B	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>									
97.5 %      72-125									

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ENSR - Sacramento  
10411 Old Placerville Rd., Suite 210  
Sacramento, CA 95827-2508

Project: FormerUnocal2672,1075SantaRosaAve,SantaRosa,CA  
CLS Work Order #: COJ1008  
Project Number: 06940-268-100  
Project Manager: Margaret Riggin

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-11 (COJ1008-11) Water   Sampled: 10/27/05 12:15   Received: 10/28/05 09:00</b>									
Di-isopropyl ether	ND	0.50	µg/L	1	CO08278	10/31/05	10/31/05	EPA 8260B	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>									
		99.2 %		72-125		"	"	"	"
<b>MW-12A (COJ1008-12) Water   Sampled: 10/27/05 11:13   Received: 10/28/05 09:00</b>									
Di-isopropyl ether	ND	0.50	µg/L	1	CO08278	10/31/05	10/31/05	EPA 8260B	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
<b>1,2-Dichloroethane</b>	<b>23</b>	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>									
		98.4 %		72-125		"	"	"	"

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ENSR - Sacramento  
10411 Old Placerville Rd., Suite 210  
Sacramento, CA 95827-2508

Project: FormerUnocal2672,1075SantaRosaAve,SantaRosa,CA  
Project Number: 06940-268-100  
CLS Work Order #: COJ1008  
Project Manager: Margaret Riggin

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-12B (COJ1008-13) Water   Sampled: 10/27/05 11:46   Received: 10/28/05 09:00</b>									
Di-isopropyl ether	ND	0.50	µg/L	1	CO08278	10/31/05	10/31/05	EPA 8260B	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>									
		99.3 %		72-125		"	"	"	"
<b>MW-13A (COJ1008-14) Water   Sampled: 10/27/05 12:14   Received: 10/28/05 09:00</b>									
Di-isopropyl ether	1.5	0.50	µg/L	1	CO08270	10/31/05	10/31/05	EPA 8260B	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>									
		93.1 %		72-125		"	"	"	"

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ENSR - Sacramento  
10411 Old Placerville Rd., Suite 210  
Sacramento, CA 95827-2508

Project: FormerUnocal2672,1075SantaRosaAve,SantaRosa,CA  
Project Number: 06940-268-100  
CLS Work Order #: COJ1008  
Project Manager: Margaret Riggin

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-13B (COJ1008-15) Water Sampled: 10/27/05 12:49 Received: 10/28/05 09:00</b>									
Di-isopropyl ether	ND	0.50	µg/L	1	CO08270	10/31/05	10/31/05	EPA 8260B	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>									
		88.1 %		72-125		"	"	"	"
<b>MW-14A (COJ1008-16) Water Sampled: 10/27/05 13:17 Received: 10/28/05 09:00</b>									
Di-isopropyl ether	ND	0.50	µg/L	1	CO08270	10/31/05	10/31/05	EPA 8260B	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>28</b>	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
<b>1,2-Dichloroethane</b>	<b>7.4</b>	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>									
		89.1 %		72-125		"	"	"	"

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ENSR - Sacramento  
10411 Old Placerville Rd., Suite 210  
Sacramento, CA 95827-2508

Project: FormerUnocal2672,1075SantaRosaAve,SantaRosa,CA  
CLS Work Order #: COJ1008  
Project Number: 06940-268-100  
Project Manager: Margaret Riggin

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-14B (COJ1008-17) Water Sampled: 10/27/05 13:47 Received: 10/28/05 09:00</b>									
Di-isopropyl ether	ND	0.50	µg/L	1	CO08270	10/31/05	10/31/05	EPA 8260B	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i> 91.6 % 72-125 " " " "									
<b>MW-15 (COJ1008-18) Water Sampled: 10/27/05 11:00 Received: 10/28/05 09:00</b>									
Di-isopropyl ether	ND	0.50	µg/L	1	CO08270	10/31/05	10/31/05	EPA 8260B	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i> 93.6 % 72-125 " " " "									
<b>QA (COJ1008-19) Water Sampled: 10/27/05 00:00 Received: 10/28/05 09:00</b>									
Benzene	ND	0.50	µg/L	1	CO08217	10/28/05	10/28/05	EPA 8260B	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	

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ENSR - Sacramento  
10411 Old Placerville Rd., Suite 210  
Sacramento, CA 95827-2508

Project: FormerUnocal2672,1075SantaRosaAve,SantaRosa,CA  
CLS Work Order #: COJ1008  
Project Number: 06940-268-100  
Project Manager: Margret Riggan

## Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>QA (COJ1008-19) Water Sampled: 10/27/05 00:00 Received: 10/28/05 09:00</b>									
Surrogate: 1,2-Dichloroethane-d4	108 %	66-135		CO08217	10/28/05	10/28/05	EPA 8260B		
Surrogate: Toluene-d8	99.8 %	72-125		"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	105 %	73-125		"	"	"	"	"	

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ENSR - Sacramento  
10411 Old Placerville Rd., Suite 210  
Sacramento, CA 95827-2508

Project: Former Unocal 2672, 1075 Santa Rosa Ave, Santa Rosa, CA  
Project Number: 06940-268-100  
CLS Work Order #: COJ1008  
Project Manager: Margaret Riggin

## TPH-Gasoline by GC FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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### Batch CO08226 - EPA 5030 Water GC

<b>Blank (CO08226-BLK1)</b>						Prepared & Analyzed: 10/28/05				
Gasoline	ND	50	µg/L							
Surrogate: o-Chlorotoluene (Gas)	21.8	"		20.0		109	65-135			
<b>LCS (CO08226-BS1)</b>						Prepared & Analyzed: 10/28/05				
Gasoline	467	50	µg/L	500		93.4	65-135			
Surrogate: o-Chlorotoluene (Gas)	21.6	"		20.0		108	65-135			
<b>LCS Dup (CO08226-BSD1)</b>						Prepared & Analyzed: 10/28/05				
Gasoline	465	50	µg/L	500		93.0	65-135	0.429	30	
Surrogate: o-Chlorotoluene (Gas)	22.2	"		20.0		111	65-135			
<b>Matrix Spike (CO08226-MS1)</b>						Prepared: 10/28/05	Analyzed: 10/31/05			
Gasoline	551	50	µg/L							68-132
Surrogate: o-Chlorotoluene (Gas)	20.8	"		20.0		104	65-135			
<b>Matrix Spike Dup (CO08226-MSD1)</b>						Prepared: 10/28/05	Analyzed: 10/31/05			
Gasoline	553	50	µg/L					0.362	32	
Surrogate: o-Chlorotoluene (Gas)	20.5	"		20.0		102	65-135			

### Batch CO08273 - EPA 5030 Water GC

<b>Blank (CO08273-BLK1)</b>						Prepared & Analyzed: 10/28/05				
Gasoline	ND	50	µg/L							
Surrogate: o-Chlorotoluene (Gas)	19.0	"		20.0		95.0	65-135			
<b>LCS (CO08273-BS1)</b>						Prepared & Analyzed: 10/28/05				
Gasoline	436	50	µg/L	500		87.2	65-135			
Surrogate: o-Chlorotoluene (Gas)	19.8	"		20.0		99.0	65-135			

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Project: FormerUnocal2672,1075SantaRosaAve,SantaRosa,CA  
Project Number: 06940-268-100  
CLS Work Order #: COJ1008  
Project Manager: Margaret Riggan

## TPH-Gasoline by GC FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch CO08273 - EPA 5030 Water GC

LCS Dup (CO08273-BSD1)		Prepared & Analyzed: 10/28/05							
Gasoline	344	50	µg/L	500		68.8	65-135	23.6	30
Surrogate: o-Chlorotoluene (Gas)	20.5		"	20.0		102	65-135		

### Batch CO08280 - EPA 5030 Water GC

Blank (CO08280-BLK1)		Prepared & Analyzed: 10/31/05						
Gasoline	ND	50	µg/L					
Surrogate: o-Chlorotoluene (Gas)	19.1		"	20.0		95.5	65-135	

LCS (CO08280-BS1)		Prepared & Analyzed: 10/31/05						
Gasoline	462	50	µg/L	500		92.4	65-135	
Surrogate: o-Chlorotoluene (Gas)	20.3		"	20.0		102	65-135	

LCS Dup (CO08280-BSD1)		Prepared & Analyzed: 10/31/05						
Gasoline	413	50	µg/L	500		82.6	65-135	11.2
Surrogate: o-Chlorotoluene (Gas)	20.4		"	20.0		102	65-135	30

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ENSR - Sacramento  
10411 Old Placerville Rd., Suite 210  
Sacramento, CA 95827-2508

Project: Former Unocal 2672, 1075 Santa Rosa Ave, Santa Rosa, CA  
Project Number: 06940-268-100  
CLS Work Order #: COJ1008  
Project Manager: Margaret Riggan

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch CO08217 - EPA 5030 Water MS

Blank (CO08217-BLK1)		Prepared & Analyzed: 10/28/05					
Benzene	ND	0.50	µg/L				
Di-isopropyl ether	ND	0.50	"				
Toluene	ND	0.50	"				
Ethyl tert-butyl ether	ND	0.50	"				
Methyl tert-butyl ether	ND	0.50	"				
Ethylbenzene	ND	0.50	"				
Xylenes (total)	ND	1.0	"				
tert-Amyl methyl ether	ND	0.50	"				
Tert-butyl alcohol	ND	5.0	"				
1,2-Dibromoethane (EDB)	ND	0.50	"				
1,2-Dichloroethane	ND	0.50	"				
1,2-Dichloroethane	ND	0.50	"				
Benzene	ND	0.50	"				
Toluene	ND	0.50	"				
Ethylbenzene	ND	0.50	"				
Xylenes (total)	ND	1.0	"				
<i>Surrogate: Toluene-d8</i>	9.86		"	10.0		98.6	72-125
<i>Surrogate: 1,2-Dichloroethane-d4</i>	10.6		"	10.0		106	66-135
<i>Surrogate: Toluene-d8</i>	9.86		"	10.0		98.6	72-125
<i>Surrogate: 4-Bromofluorobenzene</i>	10.8		"	10.0		108	73-125

LCS (CO08217-BS1)		Prepared & Analyzed: 10/28/05					
Benzene	18.6	0.50	µg/L	20.0		93.0	0-200
Toluene	18.7	0.50	"	20.0		93.5	0-200
Methyl tert-butyl ether	19.6	0.50	"	20.0		98.0	52-130
<i>Surrogate: Toluene-d8</i>	10.0		"	10.0		100	72-125
<i>Surrogate: 1,2-Dichloroethane-d4</i>	9.64		"	10.0		96.4	66-135
<i>Surrogate: Toluene-d8</i>	10.0		"	10.0		100	72-125
<i>Surrogate: 4-Bromofluorobenzene</i>	10.6		"	10.0		106	73-125

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ENSR - Sacramento  
10411 Old Placerville Rd., Suite 210  
Sacramento, CA 95827-2508

Project: Former Unocal 2672, 1075 Santa Rosa Ave, Santa Rosa, CA  
Project Number: 06940-268-100  
CLS Work Order #: COJ1008  
Project Manager: Margaret Riggin

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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### Batch CO08217 - EPA 5030 Water MS

LCS Dup (CO08217-BSD1)		Prepared & Analyzed: 10/28/05						
Benzene	21.7	0.50	µg/L	20.0	108	0-200	15.4	200
Toluene	21.5	0.50	"	20.0	108	0-200	13.9	200
Methyl tert-butyl ether	22.1	0.50	"	20.0	110	52-130	12.0	30
<i>Surrogate: Toluene-d8</i>	<i>10.1</i>		"	<i>10.0</i>	<i>101</i>	<i>72-125</i>		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>10.9</i>		"	<i>10.0</i>	<i>109</i>	<i>66-135</i>		
<i>Surrogate: Toluene-d8</i>	<i>10.1</i>		"	<i>10.0</i>	<i>101</i>	<i>72-125</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>10.4</i>		"	<i>10.0</i>	<i>104</i>	<i>73-125</i>		

### Batch CO08270 - EPA 5030 Water MS

Blank (CO08270-BLK1)		Prepared & Analyzed: 10/31/05						
Di-isopropyl ether	ND	0.50	µg/L					
Ethyl tert-butyl ether	ND	0.50	"					
Methyl tert-butyl ether	ND	0.50	"					
tert-Amyl methyl ether	ND	0.50	"					
Tert-butyl alcohol	ND	5.0	"					
Benzene	ND	0.50	"					
Toluene	ND	0.50	"					
Ethylbenzene	ND	0.50	"					
Xylenes (total)	ND	1.0	"					
<i>Surrogate: Toluene-d8</i>	<i>8.96</i>		"	<i>10.0</i>	<i>89.6</i>	<i>72-125</i>		

### LCS (CO08270-BS1)

LCS (CO08270-BS1)		Prepared & Analyzed: 10/31/05						
Methyl tert-butyl ether	20.2	0.50	µg/L	20.0	101	52-130		
<i>Surrogate: Toluene-d8</i>	<i>10.1</i>		"	<i>10.0</i>	<i>101</i>	<i>72-125</i>		

### LCS Dup (CO08270-BSD1)

LCS Dup (CO08270-BSD1)		Prepared & Analyzed: 10/31/05						
Methyl tert-butyl ether	19.8	0.50	µg/L	20.0	99.0	52-130	2.00	30
<i>Surrogate: Toluene-d8</i>	<i>10.2</i>		"	<i>10.0</i>	<i>102</i>	<i>72-125</i>		

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ENSR - Sacramento  
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Sacramento, CA 95827-2508

Project: Former Unocal 2672, 1075 Santa Rosa Ave, Santa Rosa, CA  
Project Number: 06940-268-100  
CLS Work Order #: COJ1008  
Project Manager: Margaret Riggan

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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### Batch CO08278 - EPA 5030 Water MS

Blank (CO08278-BLK1)		Prepared & Analyzed: 10/31/05								
Di-isopropyl ether	ND	0.50	µg/L							
Ethyl tert-butyl ether	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
tert-Amyl methyl ether	ND	0.50	"							
Tert-butyl alcohol	ND	5.0	"							
1,2-Dichloroethane	ND	0.50	"							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	1.0	"							
Surrogate: Toluene-d8	9.11		"	10.0		91.1	72-125			
LCS (CO08278-BS1)		Prepared & Analyzed: 10/31/05								
Methyl tert-butyl ether	20.8	0.50	µg/L	20.0		104	52-130			
Surrogate: Toluene-d8	10.1		"	10.0		101	72-125			
LCS Dup (CO08278-BSD1)		Prepared & Analyzed: 10/31/05								
Methyl tert-butyl ether	20.7	0.50	µg/L	20.0		104	52-130	0.482	30	
Surrogate: Toluene-d8	9.97		"	10.0		99.7	72-125			

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ENSR - Sacramento  
10411 Old Placerville Rd., Suite 210  
Sacramento, CA 95827-2508

Project: FormerUnocal2672,1075SantaRosaAve,SantaRosa,CA  
CLS Work Order #: COJ1008  
Project Number: 06940-268-100  
Project Manager: Margaret Riggin

## Notes and Definitions

GC-25 Weathered gasoline.

GAS-1 Although sample contains compounds in the retention time range associated with gasoline, the chromatogram was not consistent with the expected chromatographic pattern or "fingerprint". However, the reported concentration is based on gasoline.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference



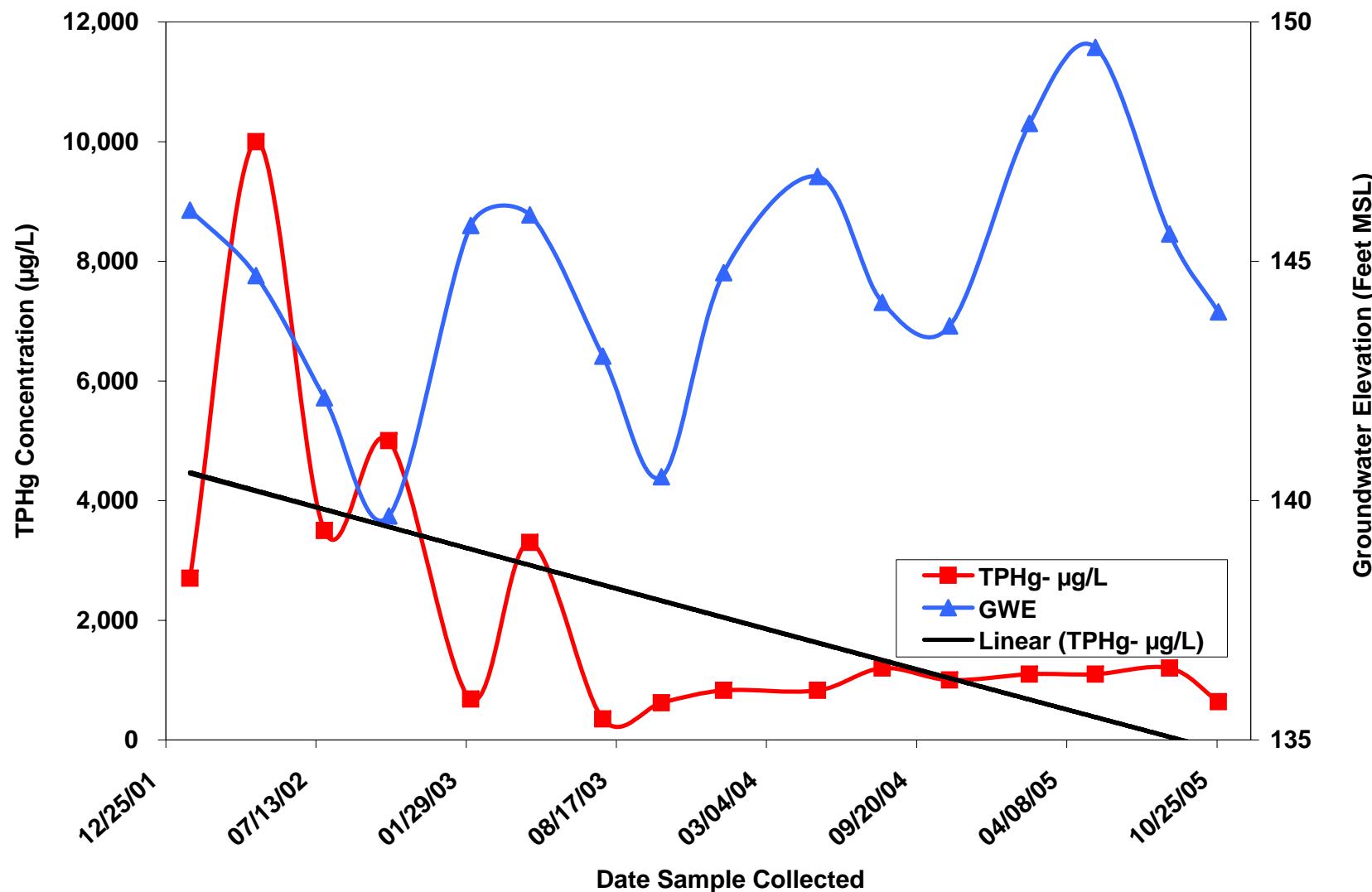
## **ATTACHMENT D**

### **TPHG AND BENZENE CONCENTRATION AND GROUNDWATER ELEVATION TRENDS OVER TIME**

**Former Unocal Service Station No. 2672**

1075 Santa Rosa Avenue  
Santa Rosa, California

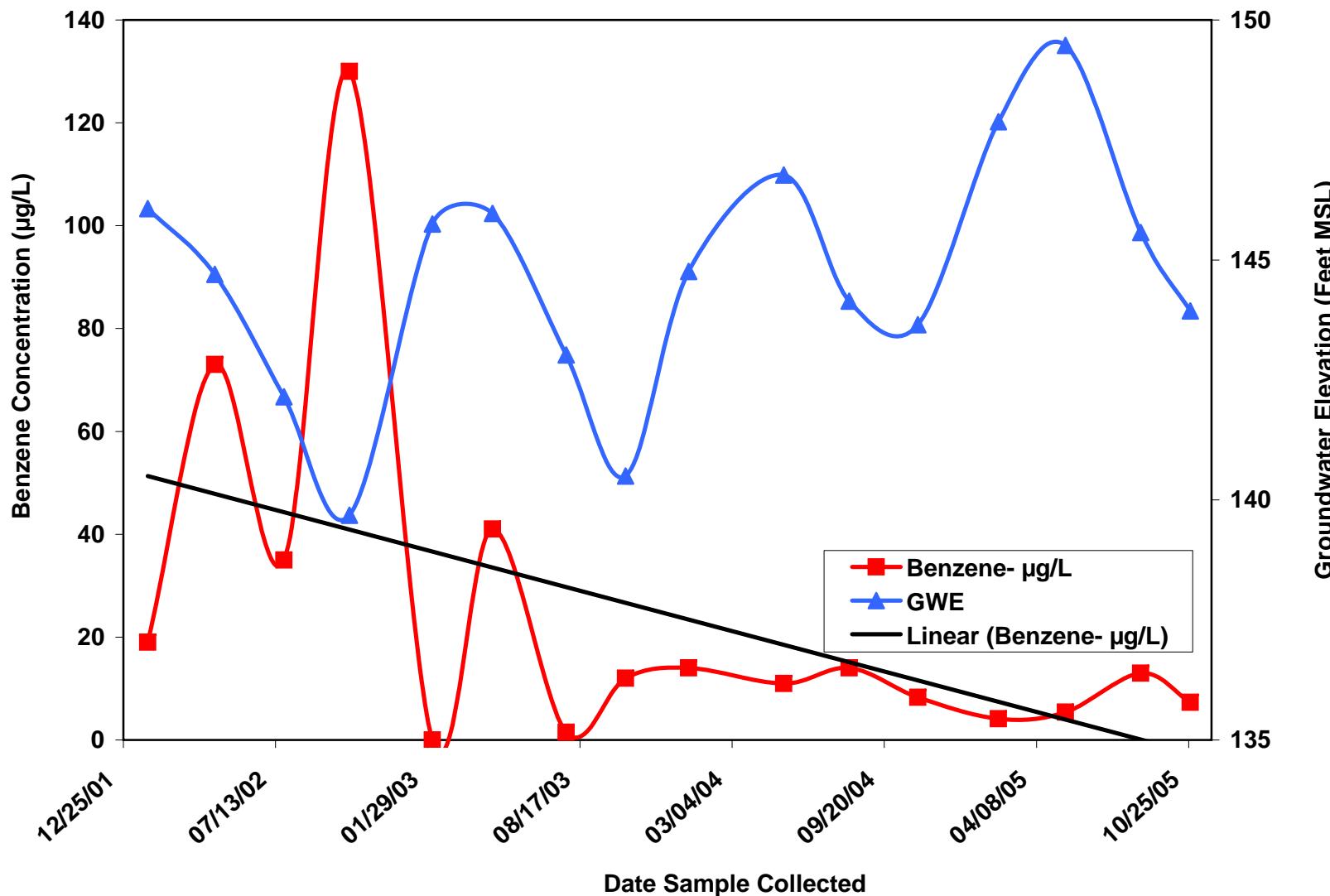
**TPHg Concentration and GWE Trends vs. Time in MW-3**



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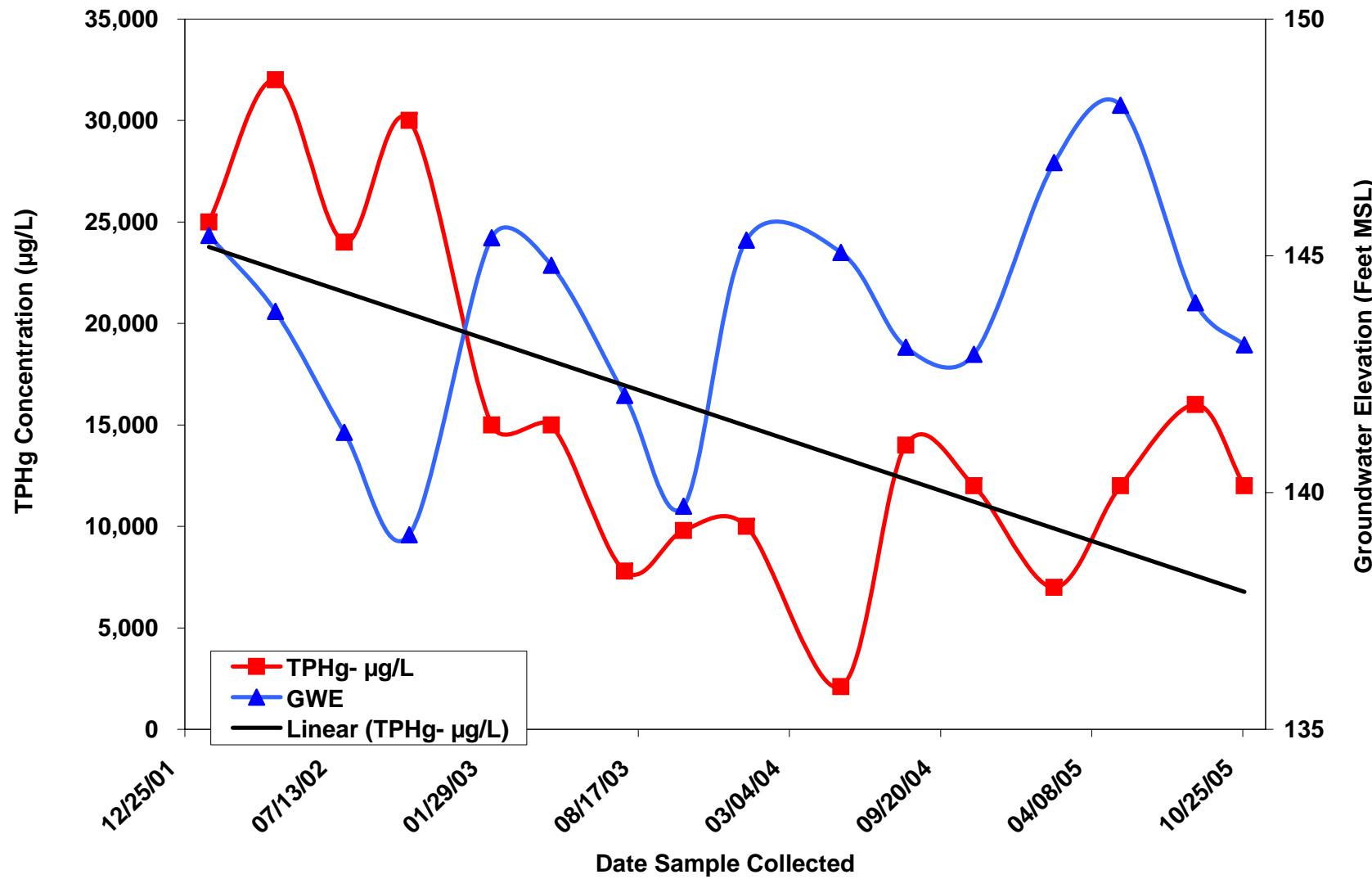
**Benzene Concentration and GWE Trends vs. Time in MW-3**



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**TPHg Concentration and GWE Trends vs. Time in MW-8**



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**Benzene Concentration and GWE Trends in MW-8**

